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The Relation of the Mental Hospital Physician to the Patient and His Relatives*

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In this day and age we are apt to think we are pioneering, but a little reflection will remind us that there is "nothing new under the sun." Primitive man believed that disease afflicted him because of the wrath of evil spirits and the healing art therefore consisted in the use of such methods as would repel or propitiate such evil influence. The insane was one who was possessed by an evil spirit. Jesus of Nazareth went about "healing the sick and casting out devils." It is not surprising therefore that the treatment of mental disease was in the hands of priests, and that this treatment consisted in great measure of religious ceremonies. In Greece the medical priests were in charge of temples where sick people were treated. These temples were quite numerous and while they were not devoted exclusively to the care of the mentally ill, definite provisions were made for such care and were the forerunners of the modern general hospital. The ceremonies having to do with treatment of the mental cases have been described by Hippocrates. Celsus in A. D. 5 wrote upon the subject of the treatment of mental disease and gave us some wise rules as to hygienic and moral management. The accounts of Coelius Aurelianus, A. D. 195 are the most complete of any writers of that period. He has the following to say about the management of difficult and disturbed patients: "If the sight of other persons irritates them and only in very rare cases, restraint may be employed, but with the greatest precautions, without any unnecessary force and after carefully protecting all joints and with special care to use only restraining apparatus of a soft and delicate texture, since means of repression employed without judgment increase and may even give rise to furor instead of repressing it." It is well that we follow these rules today.

For many years however there was little provision made for the mental patient. He was allowed to roam about or was placed in jail or an almshouse. The point is that in spite of mystery and superstition he was considered a medical problem. The first mental hospital was Bethlehem or Bedlam as it was called, founded by Simon Fitz Mary, sheriff of London in 1247. In 1660 the Hotel Dieu in Paris set aside two wards for the insane. The York Retreat was founded in 1796 by William Tuke. Philip Pinel became physician for the insane in 1793. He advocated many administrative procedures which are used in our present mental hospitals. The emphasis was upon "moral treatment" yet the necessity for a medical atmosphere was recognized. They also had their difficulties with unsatisfactory employees. The personality of the attendant was considered of prime importance, he was urged not to be familiar with his patients, yet to do everything possible to arouse their affection and confidence. He was not to reason with them during moments of stress, nor was he to speak condescendingly to them in lucid intervals.

The first organized psychiatry in this country was confined to the mental hospital. In the beginning the humanitarian idea was in the foreground. Psychiatry was therefore based largely on kindly care, and hospitals were built with the purpose of providing good physical attention and segregating these individuals from the community. Improvement in all cases and recovery in some was noted and thus the idea of therapy was born. Many problems arose and progress in the care of the insane was not always uniformly advanced. Private hospitals came into being and the state hospitals in some cases fell into disrepute. The National Committee

*Read before the Section on Neurology, Psychiatry and Endocrinology, Annual Session, Oklahoma State Medical Association, May 21, 1941, in Oklahoma City.

for Mental Hygiene founded at about the beginning of this century came into being largely because of evils existing in the state hospitals. This Committee has been a potent factor in the development of psychiatry in America. It attempts to dispel the idea that there is a stigma connected with mental disease. It emphasizes the medical side of the problem. The relationship of psychiatry and the law has received attention. It has recognized the necessity for highly trained specialists in various fields of psychiatry. It aims to secure for the mentally ill the same medical attention as that accorded the physically ill.

While much has been accomplished and the attitude of the public has changed and the medical profession has made great strides in the matter of treatment of the mentally afflicted there yet remain many things to do. For example, let us consider the method of commitment to a state hospital, which at least in the beginning seems far removed from a medical procedure. First, someone, a relative or perhaps an officer of the law, signs a petition setting forth the complaint. This is presented to the County Judge who then, if he deems the case worthy, appoints two regularly licensed physicians to examine the person suspected of being insane. A time for hearing is set; notice of hearing is given and the physicians with the judge sitting as a sanity board interview the patient, hear evidence from friends, relatives and neighbors. The physicians fill out the prescribed blanks and make a certificate that this person is insane and a fit subject for treatment in a hospital for the insane. The judge then makes an order for admission to a hospital for the insane and instructs the sheriff or some of his force to transport the individual to the superintendent of the hospital there to be kept until he is legally discharged. In many instances the sick person has been confined in the jail until the foregoing procedure could be got under way. He is accompanied to the hospital by armed guards. It is essential that no individual be deprived of his liberty without due process of law but there should be some modification of the legal process and I am glad to say that frequently there is a deviation from the foregoing even if not strictly within the letter of the law.

Immediately upon admission however the individual should and does become a medical problem. He is received by a physician. He should be greeted as a sick person. His health should be inquired into briefly and he should be made to feel that he has arrived at a hospital and that his case will have careful attention and that when he is well he will be able to return home. The manner of his reception and the consideration given him during the first few days are of extreme importance. If relatives accompany the patient, they are interviewed, the method of reports and correspondence are explained to them. A guarded prognosis is given. They should be impressed with the idea that this is a medical case and therefore no absolute prediction can be made. It should be explained to them that mental disease unlike physical disease requires time for recovery or improvement, that they must think in terms of months rather than weeks, that medicine or drugs is only a part of the treatment provided, that the mere separation of the patient from his former environment and close relatives constitutes a method of treatment in itself.

The examination begins at once. I cannot too strongly emphasize the importance of careful, considerate observation. Notes are at once made to be transcribed later on the patient's record. It goes without saying that a thorough physical examination is made beginning as soon as the patient is sent to his ward. This of course includes various laboratory procedures and an accurate record is made of all essential details. All the while this is going on the examining physician is taking cognizance of mental symptoms. All members of the staff should become acquainted with the patient so when his case is worked out and presented to the staff meeting in regular session, each member will have a personal opinion based on observation and examination and will not depend on the history as read. The matter of diagnosis and classification is of relative value only, the important thing is to know the patient and treat him, not some specifically named disorder.

As the patient is becoming accustomed to his new surroundings the physician visits him frequently, he learns something of his delusions or hallucinations, the attendant is informed of some of his symptoms and is instructed as how best to manage him. Specific instructions are given the attendant remembering always that he (the attendant) is just that and not often a trained nurse. As the days pass the physician endeavors to gain the confidence of the patient, he should know his thoughts, why does he act as he does, there is generally a reason. The patient should be made to feel that the physician considers his case of paramount importance. He never makes light of his delusions, he listens to his story.

Each case is different, there is no set time for the patient to be transferred from the receiving ward, no set time to be assigned a task, each is treated as an individual. The physician should constantly study the vary-

ing moods of the patient, he should be cheerful without wisecracking, dignified without coldness, sympathetic but not sentimental. To those who are accessible talk over their troubles with them. Do not argue, be frank, tell him his thoughts are unusual and unreasonable, that at times many people do things or have thoughts which to them seem normal but to others are abnormal. I believe the definite turning point in the progress of a woman patient came when she said "Doctor, I will try to believe you are right."

We are all in accord with the idea that no mechanical restraint should ever be used but at times it is better to use some restraint rather than to have the excited, irritable, maniacal patient injured or injure others. There should be no standing order but the physician should give permission in writing with stated reasons for a specified form of restraint. The physician should know the individual patient well enough that he is able properly to prescribe restraint or seclusion.

There should be no routine about medication. If sedation is indicated it should be prescribed. It may consist of varying forms for various patients. If the new patient needs a laxative he should have it but not just because he is a recent admission. Likewise there should be no set procedure with respect to treatment of syphilitic cases. Does this particular individual require arsenical and mercury, if so in what form? Is he a fit subject for malaria? Is shock treatment indicated? The point I am trying to make is that each patient should be individualized and medical treatment outlined accordingly. This requires careful observation and definite study for each one.

The chronic case also should be individualized. Do not give a black pill to a certain number of cases on Ward X on Saturday and a green pill on Tuesday. There is no virtue in giving magnesium sulphate on Wednesday night. Such practices have been known to prevail. The physician has a complete drug stock at his disposal, he should give what the patient needs at the time or from day to day. This can only be done if he knows his patient individually and personally.

The relation of the physician to the relatives is of great importance. Consideration and tact is required as well as an infinite amount of patience. Your prognosis should be guarded yet as optimistic as the case warrants. Never say "never." How many of us recall, after having carefully and at length explained the situation to the relatives, hearing them say, "Doctor, just what is the matter with ———?" Remember that this situation is a trying one, attempt to put yourself in the relatives' place. Explain your method of making reports, your practice with respect to correspondence, the regulations regarding visiting.

All inquiries should be answered promptly but no letter should be written unless that particular patient is seen personally that day. Obviously it is impossible to make routine reports on all patient at stated intervals but the relatives should be notified by phone if necessary if a patient's condition becomes serious or critical. Arrangements should be made in advance for disposition of the body in case of death. All injuries should be reported to the relatives giving frankly the circumstances connected with the injury.

The hospital physician should take advantage of every opportunity to appear before medical and lay groups to explain about the modern methods of treatment for the mentally ill, the old asylum idea is still too prevalent among the people. Meet the press more than half way. Encourage visits to the hospital of highschool and college groups. I have endeavored not to set forth a set of rules to be followed literally, but to present the idea that individual, personal attention on the part of the physician is the important thing.

It has been said that the mentally ill needs a friend, that is true but it is also true that he needs a physician, one who stands in the relationship of the old family doctor to the physically sick. Even though he is working for the State the mental hospital physician should be imbued with the idea of rendering a personal service to the mentally afflicted and his relatives. In giving of himself unstintedly to this task he will be compensated in a far greater measure than that indicated by his salary. He should be as genuinely interested in his patients' recovery as is the private physician.

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Hemorrhoidectomy with Special Reference to a New Technique and the Avoidance of Pain

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Cursory investigation of recent literature reveals marked advancement in determining the operability of many diseases of the rectum and colon, including malignancy. However, very little change in operation for hemorrhoids has been developed, yet it is probably the most common complaint in the ano-rectal region. Hemorrhoids are often very painful. It is a condition which affects all races of people.

HISTORICAL

Hemorrhoidectomy is an ancient operation. It was Galen who first ligated the pile and allowed the mass to slough away. Hippocrates, it is claimed, was the first to practice excision. Since this early day, many ways of treating and operating hemorrhoids have been devised and much of the technique used today had its origin generations ago.

INCIDENCE

A statistical report recently published by a large insurance company gives the incidence of hemorrhoidal disease as one-fifteenth of the total population of the United States, but if this report could be broken down to individual case records and each case studied, it is highly probable that it would be found that many allied ano-rectal diseases were included in the original survey. At any rate the report gives evidence of the frequency of hemorrhoidal diseases.

In the following paragraph or two, I want to mention some of the present day methods and techniques and point out why there is so much complaint from the laity concerning postoperative pain and fear of operation for "piles." Medical charlatans have found this to be a fertile field and have capitalized on certain easy office procedures for the relief of hemorrhoids. For many years this subject has been inadequately taught in our medical schools, and much of the treatment and operative procedures in our hospitals have been turned over to junior surgeons, residents and interns whose efforts frequently result in unsatisfactory cures and unfortunate complications. Non-surgical or office procedures are always more appealing to people than hospital confinement. Therefore, the injection treatment has been devised and carried to all parts of the world and probably too often to the extremes. The fact that men with little skill can use the injection method with such ease is in itself a condemnation of it. A few skillful men of high calibre have brought the art of injection to its present high standard. I believe only a relatively few expert proctologists can wisely select and properly inject hemorrhoids. Injection is contraindicated in many instances, for example, in the presence of infection, fissure, ulcer, abscess, cryptitis, papillitis and in extensive prolapse; last, but not least, in cases of large external hemorrhoids or skin tabs. Doctor Buie and Doctor Rankin mention idiosyncrasy to certain drugs as a real danger to the injection method. Less than a month ago I was called to a doctor's office to see a frightful case. The doctor had used a quinine compound in a case who had an idiosyncrasy to this drug.

It is my experience, which is corroborated by that of Mayo Clinic and others, that it is rare to find internal hemorrhoids in the absence of external ones and similarly it is rare to fine external hemorrhoids in the absence of internal ones. Unless acute thrombosis or infection is present I always remove both types of hemorrhoids at the same time.

Experienced proctologists have found uncomplicated hemorrhoids to be productive of very little, if any, pain or discomfort. Pain is the symptom of a complication, usually infection or thrombosis.

Undoubtedly the clamp and cautery method of hemorrhoidectomy is the one most commonly used. Frankly it is not the technique of the trained proctologist. There are many objections to it, most of which have been described by other proctologists. One of the main objections is the failure to remove associated pathological lesions in the ano-rectal region at the time of the operation. There is often present a deformity about the anal margin due to a piling up of skin and the presence of large varicosities beneath the surface. Now, when the clamp and cautery operation is done, usually little effort is made to dissect out these varicosities, before the clamp is applied. Postoperative pain is nearly always a feature of no small moment to the patient who has had the cautery operation.

Lockhart-Mumery claim that the clamp and cautery operation is not complete, and that recurrence is common. Secondary hemorrhage is always a danger. Hirchman

claims that the use of a hot iron in a mucous cavity is prone to be followed by stricture.

Over-sewing and burying stumps of mucocutaneous tips of tissue is a violation of good surgical principles, especially if infection is present. The ano-rectal region is constantly bathed with infected material. Bruised skin and membranes always slough. This serves as an incubator, developing virulent infection and abscess formation.

Doctor Buie and Doctor Smith of the Mayo Clinic make use of a small clamp but their extreme skill and postoperative care accounts for their low number of complications. The management of postoperative hemorrhage is always much more difficult in the presence of clamped off and over-sewed surfaces. Cutting circularly around the anal orifice is violating one of the fundamentals of surgery as it tends to produce stricture.

Except on thrombotic, external hemorrhoids demanding immediate attention, I do not advise local infiltrating anesthetic. This tends to distort the tissue and renders it difficult for the operator to judge the original pathological land marks.

In my opinion cases presenting sloughing, gangrenous internal hemorrhoids should be operated. However, this is a moot question and treatment should be selected according to the merits of each individual case.

Thorough examination and history-taking form the basic ground work for diagnosis and proper treatment for all ano-rectal disorders. A carefully written history is of great importance. A description of the complaints, their association with bowel movements and any change in bowel habits are recorded. Probably the most important observation is the one pertaining to a change of bowel habit, from regularity to constipation or from regularity to an increase in the number of stools. Also the character of the stool is important. The patient should be asked about the presence of blood or mucus and its distribution.

Digital examination should not only include the anus and lower rectum, but also palpation of the coccyx, prostate and seminal vesicles. In female patients the examiner should know something of the conditions of the pelvic organs. The introduction of the anoscope, and subsequently the proctoscope, should be made very gently. If a spasm of this sphincter is encountered, the examination is stopped until the patient can relax. While hemorrhoids can be seen through a proctoscope, they can be studied and outlined best through the anoscope.

While much has been said of the various methods to be selected for the treatment of hemorrhoids, certain medical groups are inclined toward non-operative procedures, while others swing to surgery on all types. Unfortunately, many well established and tried treatments are improperly given.

The method I advise is not particularly mine nor any one proctologist's. It is a method I have chosen to accomplish perfect results with the minimum of complications and discomfort. Some of the essential features of my technique are:

1. Results are uniformly more efficient and complete.
2. No postoperative pain.
3. No slough and a minimum of infection.
4. No danger of postoperative bleeding.
5. Period of convalesence lessened with greater and earlier activity.
6. Morbidity is diminished.

Regarding the preoperative care, the usual routine is carried out. Digital, anoscopic and proctoscopic examination in all cases and X-ray and laboratory examination when necessary.

The patient enters the hospital on the night before the operation. The usual urinalysis, blood count, coagulation and clotting time is taken. A blood Wasserman is usually included in the laboratory work unless a recent test has been made. Two plain water enemas are given the night before the operation, two hours apart. One enema in the morning two hours prior to the surgery—one seconal or nembutal capsule at 10 p.m. The usual preparation for any surgical operation before retiring. Morphine one-fourth to one-sixth gr., or dilaudid 1/32 gr. one hour prior, and one and one-half gr. seconal an hour and a half before operation.

The anesthetic of choice is caudal or sacral block given in the usual manner. A low, or so-called "Sitting Bull" spinal is excellent. Unless the patient refuses the above types, I never use a general.

The patient lies prone with hips elevated to the extreme, the Jack Knife position, with arms and shoulders comfortably resting on an arm board. In this position there will be no over-engorgement of the hemorrhoidal area with resulting removal of too much tissue, and the surgeon can be assured of sufficient room for assistance.

The anus and perineum for about a six inch radius is painted twice with tincture merthiolate, and drapes are placed. Before starting the operation I always test the anal tissue for anesthesia, using preferably a toothless hemostat. When anesthesia is complete the anal canal is dilated with an anoscope only and not divulged as advised in older text books. I first use two or three strips of rolled gauze passed through the anoscope to bring down gently all hemorrhoids. A small piece of gauze attached to a tape may be rolled and pushed high in the midrectum to prevent stool seepage and

blood back flowing, since the patient is lying prone.

Regardless of the theories and ideas of a few good proctologists concerning the main hemorrhoidal masses and their constant location in all cases, the main idea is surgically to approach these masses in the easiest and most convenient way to remove them successfully. The following procedure is usually advisable; however, I want to say here that there are two things to keep in mind: first, select the hemorrhoid which, when removed, will allow the operator to approach better each consecutive one, and, secondly, at the same time not be hampered by the oozing of blood from the site of a freshly operated field.

To expose the hemorrhoid to the best advantage, grasp the skin with a five inch Kelly forcep about one inch from the base of the selected hemorrhoid to be removed. The forcep is so placed as to make traction of the skin in line with the hemorrhoid mass and be pointed toward the anus. By traction and retraction in opposite directions, the internal and external hemorrhoid then present themselves as one defect and are removed in one mass. In chronic fissures sometimes you may find the anal contracture so marked that even the finger is not easily admitted. In such cases the sphincter is divided in the mid line posterior. By all means never dilate the anal canal by force. Painful hematoma, muscle destruction with formation of scar tissue, and incontinence are the results. With another five inch curved Kelly forcep, I grasp the top and uppermost pole of the hemorrhoid mass and include in this pick-up the mucous membrane as far as one-half an inch superior to the pectinate line. All of the hemorrhoidal mass, both internal and external, is gently manipulated for exposure.

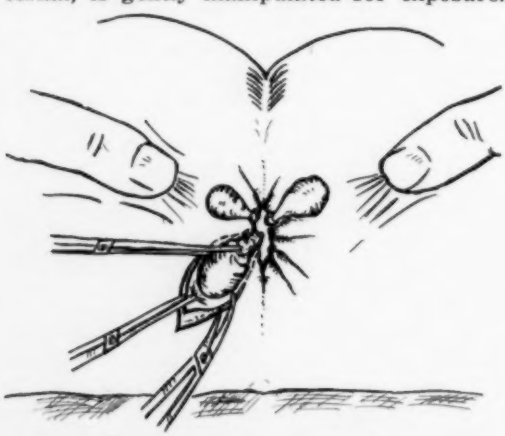

FIGURE I

Figure 1: The hemorrhoids have been drawn outside the anus in their respective quadrants. The most dependent one is selected and an elliptic incision is made on each side including all the hemorrhoidal mass.

This having been accomplished, the next step is the removal. With curved scissors, I start the incision just below the first pair of forceps on the skin toward the hemorrhoid incise the skin and mucous membrane around the mass on both sides, reaching the apex or upper angle at such a distance that it would circumscribe all the mass including the veins, but much care is taken not to dip down too far to include any fibers of the sphincter muscle. The mass is now lifted away and upon inspection we find an open eliptical wound, the outer angle of which is just below where the first skin forceps was anchored and the inner angle just above the pectinate line. With a plain cat gut suture on a small, full curve cutting needle, all bleeding points are brought up and included in a continuous locked suture along the cut edge of the upper portion of the wound but leaving the lower skin portion of the wound gaping for drainage. This point is very essential because all

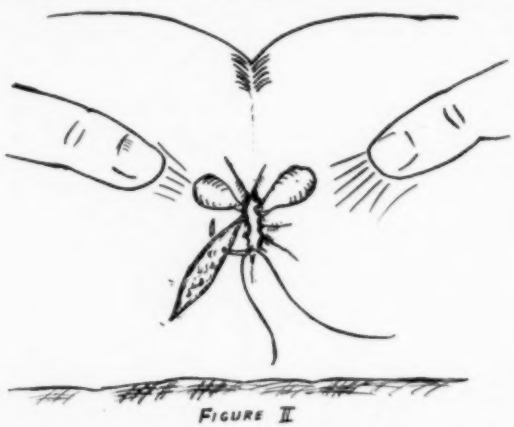

FIGURE II

Figure 2: The hemorrhoidal mass has been dissected out and the suturing started. All bleeding points are caught up in this procedure.

tissue about the anal canal is constantly bathed in bacteria. Attention is called to the fact that I do not have any buried sutures in any part of the wound to invite abscess and the stumps of the hemorrhoidal veins have been caught up and sutured under the cut edge of the mucosa.

After the hemorrhoid is removed and suturing completed the traction released there should be a falling together of the edges of the mucosa. The skin edges almost fall together also but are gaping just enough to furnish a trough for drainage. This completes the removal of one hemorrhoid. All others are removed in the same manner, but care is taken to leave strips of mucous membrane between each operative field to prevent stricture.

Inspection of the anal canal is very important following this technique—removing any clots and not overlooking any inflamed

FIGURE III.

Figure 3: All hemorrhoids have been removed and suturing completed. The edges of the upper portion of the wound fall together while the outer portion gaps just enough for drainage.

papilla or fissure. Should such be found they are excised at this time. If any postoperative bleeding occurs the operator will know a fresh hemorrhage has taken place.

With the speculum inserted, a sponge saturated with tincture merthiolate is placed in the anal canal and the speculum withdrawn. At the end of one minute the sponge is removed and again the canal is observed through a speculum. All excess merthiolate is taken up with a dry sponge. Anesthetic ointments never prevent postoperative pain appreciably. Gentleness in handling the tissue and the proper care of all anal lesions have been found to be more effective.

Fissures and ulcers have been reported in patients as high as 30 percent by some operators. They are usually found in the mid line posterior. These should be excised deep enough to include the indurated, infected tissue surrounding them. Small fistulae are dissected out after the hemorrhoidectomy is completed. Large fistulae are dealt with separately and in the lithotomy position if they extend over the perineum.

The next step is to prevent postoperative pain. Tincture merthiolate is now painted over the area for a four inch radius about the anus and, with the index finger of the left hand in the ano-rectal canal as a guide, I inject with the right hand an anesthetic agent in oil in fan shape about the anal canal deep in the perianal fat. This is evenly distributed so that all nerves will be anesthetzed by its effect. The duration of the anesthesia is about 14 to 21 days. This part of the operation is so very important, to prevent pain, sphincter spasm and discomfort. Caution must be exercised here not to pool the anesthetic in the ano-rectal fat nor to puncture the rectum. Two strips of vaseline gauze are carefully placed in the anal canal and the outer ends smoothed in and out over the wounds. This gauze is removed on the second postoperative day. A sterile gauze dressing is applied over the wound and the buttocks brought close together with two two-inch adhesive straps applied from side to side.

IMMEDIATE POSTOPERATIVE CARE

The patient is removed from the operating room in a prone position on a carrier and kept in this position in bed for three hours. After this time the pelvic musculature will have regained its tonicity and the patient may turn from side to side. The patient should not be turned on the back too soon because of pressure effect on the operative field. When the patient first notices a slight burning in the ano-rectal region he is given a hypodermic of one-fourth gr. morphine, or 1/32 dilaudid. This is repeated every four hours if necessary. As a rule no hypodermics are needed after the first day. Hot boric packs are continuously applied unless the patient is sleeping. This is essential to relax the sphincter and prevent painful spasms. On the fourth day the patient gets a laxative of one ounce of milk of magnesia. I order no mineral oil to the patient while in the hospital unless he wants it or his mind will be eased by taking it.

Regarding the diet, the following is most satisfactory to my patients:

First day: Liquids, i.e. Coca Cola, tea and broth.

Second day: A full tray with orders to eat only half the amount on the tray. (In this way they get a better variety of dishes.)

Third day: A full tray and they may eat all they want of it.

After the patient leaves the hospital, the care may be given by the home physician. This consists of daily office dressing for the first week. A dressing every third day for ten days. At the end of this time, the gloved finger should explore the anal canal to determine the presence of forming adhesions and the size of the canal. If a contracture is detected, gentle massage should be given twice weekly for a few weeks. Hot sitz baths are recommended daily for a while if there is any discomfort. A full, well-cooked, bland diet and doses of mineral oil over a period of time as seems necessary is advised. A final check-up examination should be made by the surgeon at the end of the third month. Advantages of this technique:

1. Hemorrhoidal recurrences are eliminated.
2. Postoperative pain and hemorrhages are prevented.
3. Infection is very rare following this technique.
4. Trauma is lessened.
5. Systematic division of the field is accomplished.

SUMMARY

1. A new technique for hemorrhoidectomy has been described in detail. This technique reveals the simplicity and completeness of a procedure which neatly removes all hemorrhoids and allows for drainage, prevents infection, sloughing and secondary hemorrhage, rendering postoperative surgery negligible.

2. Included in this new technique is the use of anesthetic agents in oil which has for its purpose a prolonged anesthesia until the patient has completely recovered from surgery.

3. The postoperative or convalescent period in the hospital is notably shortened and painless. Last but not least, the "final end results" are most gratifying.

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The Present Day Conception of Convulsive Disorders*

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May it be called to the attention of those interested in this subject, at the very outset, the exact title of this paper. The expression, "Convulsive Disorders," is used rather than the word epilepsy. The word epilepsy means in Greek—seizures. There are many types of seizures or convulsive disorders. Convulsions are symptoms and there is no disease entity epilepsy, as there is pneumonia, diabetes, brain tumor, encephalitis, chorea, etc. Whenever the word epilepsy is used, it should convey solely the idea that a symptom is being considered, just the same as headache, temperature, leukocytosis, etc. The word "epilepsy" has been handed down for generations and in the past has been applied to conditions often considered hereditary in nature and from a prognostic standpoint more or less hopeless. Therefore, when this word is used today, because of the way it has been interpreted for past generations, it is really unfair to the patient and to the patient's relatives. They have a tendency to consider a diseased condition labled by the doctor or any one else as "epilepsy" with the wrong perspective. Therefore, throughout the remainder of this paper the expression convulsive disorder will be used except in special instances. In Anglo-Saxon terminology, an "epileptic" is a person subject to fits. Specifically, and more accurately, epilepsy or a convulsion is a symptom of a disturbance in the electrical activity of the brain, with a tendency for this disturbance, from time to time, to vary in degree.

The symptom complex of any type of convulsion is manifested usually by:

1. Impairment of consciousness
2. Autonomic and nervous manifestations
3. Convulsive (motor) disturbances
4. Psychic (mental) disturbances

Convulsions occur only when and after the brain is involved. This is true whether the convulsions are associated with high temperature, head trauma, alcohol, idiopathic convulsions or intestinal parasites. In any of these or similar conditions, there is usually an edema of the brain which in turn has developed from either mechanical obstruction in the fluid pathways of the brain or from a toxic irritation of the brain tissue.

First divide convulsions into two groups:

1. Essential (idiopathic, cryptogenic) convulsions
2. Symptomatic convulsions

In the first group, namely, the essential, no actual blemish of the brain may be demonstrable. In the second group demonstrable lesions of the brain may exist or else etiological causes of cerebral edema may be found elsewhere in the body. In the last group, namely, symptomatic, there is usually found:

1. Congenital brain defects
2. Trauma or brain injury occurring before birth, at birth or subsequent to birth
3. Systemic diseases and intoxications as uremia, pernicious anemia, tetany, disease of glands of internal secretion, etc.
4. Drug irritation or edema of the brain and central nervous system,—as cocaine, caffeine, ergot, nicotine, lead, carbon monoxide, etc.

For an individual to have convulsions, of either the essential or symptomatic types, the electrical activity of the cells of that individual's brain must be such as to permit the convulsion. The electrical activity of the brain varies in people just the same as blood pressure varies, or the same as pulse rate,

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blood sugar, leukocyte count, etc., varies. No two people can be expected to have just the same of any of these. Two people may have exactly the same tumors of the brain or the same injury to the brain, and one of these might have convulsions and the other not. In the one the electrical activity of the brain cells could be more easily disturbed than in the other. It is this element of convulsions namely, "easily disturbed electrical activity of the brain cells," which may be inherited and it is the only element outside of organic and anatomical abnormalities which plays any part in the so-called "hereditary phase of epilepsy or convulsive disorders."

Briefly stating, to have convulsions two things must exist:

1. The brain whose cells are such that the normal electrical activity can easily be disturbed.
2. Something to disturb this electrical activity. This may be a lesion of the brain or chemical irritant. Such irritant may be taken in from outside of the body or it may develop within the body, as from a disturbed metabolism or disturbed physiology and such may be to the degree that it is difficult to determine that it actually exists.

To determine the electrical activity of the brain cells there has been developed the electro-encephalogram. This instrument measures the electrical potentials of the brain which in turn can be obtained from the brain by simply placing electrodes on the intact skull. The instrument amplifies the electrical potentials much in the same way as the electrocardiograph records the cardiac potential on a moving film as the electrocardiograph records the cardiac picture. This instrument has been developed by the two Dr. Gibbs and Dr. William G. Lennox of Boston. A very good explanation of this is found in Tice's "Practice of Medicine," Vol. 10, Chapter 12. By the use of the electroencephalogram to determine the electrical activity of the brain cells and the use of the pneumo-encephalogram to determine the organic lesions of the brain the various convulsive disorders can well be analyzed and understood. However, as in any disease, the history and the physical examinations are important features in interpreting convulsive disorders.

Convulsions occurring in adult life are nearly always based upon either some prominent organic brain condition as brain tumor, head trauma, cerebral hemorrhage, cerebral arteriosclerosis and the like, or some easily located physical illness as uremia, blood sugar disturbances, etc.

Convulsive states having their onset in infancy, childhood and youth are the ones which so often bother the family doctor, the internist and even the neuro-psychiatrist, and so often in this group when they occur around puberty and adolescence are referred to as "epilepsy of the idiopathic type." As a matter of fact, if a careful history of birth and childhood is obtained, and if electro- and pneumo-encephalograms are taken, organic brain conditions will be found to exist. There are of course exceptions, for children may have disturbed metabolisms and disturbed physiology the same as adults. However most of these convulsions which occur in infancy, childhood and early youth, are based upon either anatomical abnormalities which may be inherited or upon injuries occurring at birth (which is very frequent), or injuries occurring in early infancy and childhood, either from head trauma or cerebral infection. It has been reported in the literature of our obstetricians that 40 percent of the babies having apparently perfectly normal deliveries have sufficient trauma of the head, that red blood cells can be obtained from cerebro-spinal fluid by doing a lumbar tap immediately after birth; and in 60 percent of the babies born by difficult labor which includes either precipitate or prolonged labor, and forceps delivery. Some of the common physical and anatomical abnormalities which have a tendency to be inherited and may play a part in considering convulsions of children are:

1. Congenital malformations of the brain tissue
2. Congenital malformation of the cerebro-spinal fluid pathways
3. Angiomatous (birthmark), or blood vessel abnormalities in and about the brain.
4. Congenital malformations of the skull bones, particularly small jugular forminae.

There are two outstanding periods in a child's life in which convulsions are prone to have their onset, when such convulsions are a result of birth injury or an injury occurring in early infancy or childhood. The first period is between the ages of birth and four years, while the second is around puberty between the ages of ten and fifteen. In the first group, quite often there is sufficient injury to the brain tissue or the blood vessels of the brain that mental deficiency or spastic paralyses, one or both, are in appreciable evidence. In the second group, however, the child is considered normal in every respect until its first convulsion. In this group it is evident from recent studies in the past few years that the arachnoid granulations, which at the age of puberty rapidly develop into Pacchionian bodies, have failed to develop, and it is now known that red blood cells, as

a result of injury getting into the sub-arachnoid space in and around the arachnoid granulations ,at birth, in infancy and childhood, cause so much scar tissue in these structures that they will not develop into the Pacchionian bodies. Since it is through these latter structures that most of the cerebro-spinal fluid enters back into the blood circulation and since, when they are impaired, this function will not be properly carried out and the cerebro-spinal fluid will be dammed up into its pathways, mild or severe edema of the brain tissue takes place. When the body is in a prone or dependent position, a slowing up of the cerebrovascular circulation occurs and this is why so many of the convulsions occurring at this period in life manifest themselves either at night, and are thus called nocturnal convulsions, or else early in the forenoon after a night's rest with the body in a normal prone position.

In obtaining the history of such cases, namely, convulsions based upon birth injury, either a few or several of the following informational data relative to the individuals may be obtained:

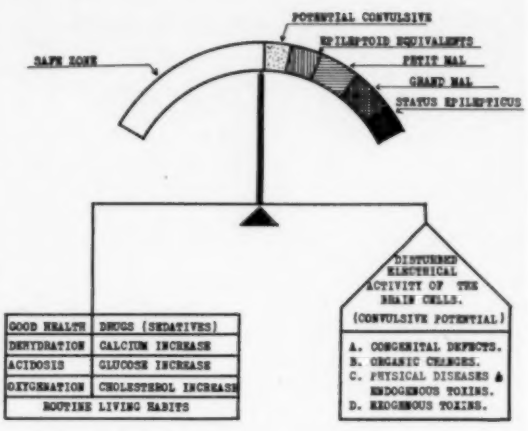
1. The child was cyanotic, breathed with difficulty or had to be resuscitated, immediately after birth
2. The child did not cry out immediately after birth
3. The labor was precipitate, prolonged or unusually difficult
4. Forceps were necessary
5. The child was premature, or perhaps of very large size
6. It was the first child and perhaps the mother was well advanced in years, before the child was born.

In this connection, the first convulsion may have been petit mal and, either petit mal or grand mal in type occurs usually when the body is in a dependent position or shortly after it has been in such position. Convulsions occurring most frequently at night or in the early morning are nearly always based on impaired cerebro-spinal fluid circulation and an organic brain condition.

In addition to all of these causative factors of convulsions, it should be borne in mind that the convulsive potential, namely, the ability of the brain cells to have their electrical activity easily disturbed, must be coexisting.

The whole field of convulsive disorders may be outlined by the following diagram:

On the right side we have those factors which swing the pendulum into the convulsive field, while on the left side of the balances we have those factors which help counterbalance the convulsive features and swing the pendulum to the non-convulsive field or the safe zone. Most of these are therapeutic procedures which may be established. Furthermore by establishing these procedures or eliminating any of those listed on the convulsive side under the letters, A, B, C, and D will help prevent the actual occurrance of convulsive attacks. The convulsive potential on the right side of the balance is the one factor which cannot be eliminated. Subdivisions of the other factors on the convulsive side of the balances are here listed:



CAUSATIVE FACTORS

A. Congenital Defects
   1. Cerebral Aplasia
   2. Cerebromocular Degeneration
   3. Congenital idiocy
   4. Tuberous sclerosis
   5. Cranial Bone Anomalies
   6. Blood Vessel Anomolies

B. Organic Changes
   1. Trauma-Hemorrhage at birth
   2. Sinus Thrombosis
   3. Encephalitis, Meningitis
   4. Gliosis, scars, multiple sclerosis
   5. Senility Arteriosclerosis
   6. Tumors, Cysts
   7. Others

C. Physical Diseases and Endogenous Toxins
   1. Uremia, Eclampsia, Asphyxia
   2. Polycythemia, Anemia, Alkalosis
   3. Decreased oxygen, Calcium, Glucose
   4. Hypertension, Hypotension, Unstable emotions
   5. Craniofacial Hemiatrophy
   6. Raynaud's Disease, Stokes-Adams Syndrome
   7. Tetanus, Acute Fevers

D. Exogenous Toxins
   1. Alcohol, Water, Insulin
   2. Picrotoxin, Absinth, Thuzone

3. Camphor, Metrazol, Protein
4. Caffeine, Nicotine, Adrenalin, Strychnine
5. Carbon Monoxide, Lead, Ergot

Allied or mild convulsive states as classified by Lennox in Tice's "Practice of Medicine" are:

1. Effecting Consciousness
   Petit mal
   Pyknolepsy
   Narcolepsy
   Somnambulism
   Bad temper or temper tantrums
2. Overactivity of Muscles
   Grand mal seizures
   Jacksonian seizures
   Tonic epilepsy
   Epilepsy partialis continua
   Hysterical convulsions
   Tetany
   Eclampsia
3. Loss of Muscle Activity or Tone
   Syncope
   Akinetic epilepsy
   Cataplexy
   Catalepsy
   Periodic familial paralyses
   Carotid sinus reflex
4. Sensory
   Reflex epilepsy
   Sensory epilepsy
   Migraine
   Vertigo
5. Autonomic System
   Vasovagal seizures
   Sympathetic seizures

CARE AND TREATMENT

When a convulsive seizure starts in any individual it is good treatment, from a medical standpoint, to protect the individual in his fall if such can be done. Then permit him to lie where he has fallen or where he has been placed until the muscular spasms have passed. If possible one should insert a small piece of wood or a rolled piece of cloth in between the teeth to prevent biting of the tongue. Loosening of all bands around the body such as collars or belts is advantageous to oxygenation. To decrease the number of convulsions as a result of treatment increases the chances of an individual making a better social adjustment. The more convulsions an individual has the more he is likely to have, and the more he is likely to be incapacitated as a result of mental deterioration and other complications associated with this type of illness. Conversely, if the number of convulsions can be decreased, the less number of convulsions one is likely to have. Treatment should be instituted with this view in mind even though one cannot expect the elimination of all convulsions. While no treatment is available, as yet, which will definitely and permanently alter the electrical activity of brain cells, some drugs such as luminal and dilantin, and the bromides will raise the convulsive threshold. Conditions which have a tendency to lower the convulsive threshold such as brain tumor, scar tissue on the brain, "birthmarks" on the brain, physical diseases, disturbed physiology, and metabolism, should be corrected.

Those convulsions in which birth injury has played a part, in particular those which have the first convulsive symptoms between the ages of ten and 14 are very amenable to the following treatment:

1. Limitation of fluid intake with copius watery bowel evacuations using saline cathartics, once or twice weekly.
2. Regular living habits, eating and sleeping
3. Elevation of the head of the bed when resting or sleeping
4. High sugar carbohydrate diet
5. Establishing a mild state of acidosis
6. Increase of calcium and cholesterol intake
7. High oxygenation
8. Using anti-convulsants such as phenobarbital, dilantin, and the bromides.

The above eight procedures may often be worthwhile in convulsions due to any and all etiological factors.

CONCLUSIONS

1. There is no disease entity epilepsy.
2. The term "seizure" or the term "convulsive disorder" is more accurate and more appropriate than the word epilepsy.
3. The causes of convulsions are many and varied.
4. Convulsions are not inherited.
5. Only a very varying convulsive threshold demonstrated by a disturbed electrical activity of the brain cells has a tendency to be inherited as a recessive Mendelian characteristic.
6. One should not speak of curing a convulsive state even though actual unconsciousness and muscular convulsions are eliminated.
7. Treatment is worthwhile. Occasionally an individual may have his convulsions eliminated. Frequently convulsions can be decreased in number and frequency.
8. With proper care and attention it is seldom necessary to confine individuals having convulsions to a state institution. Although in long standing cases with mental deterioration or in those which develop an actual psychosis or mental sickness, institutional care may be advisable.

Experience with Amebic Dysentery in Northeastern Oklahoma*

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It is not my intention in this paper to give an extensive review of either the latest methods of diagnosis of amebic dysentery or the latest methods of treatment as the time allotted does not permit such a review, and besides, it is available to any of you in your books and journals once you have suspected the condition.

This paper is, rather, an effort to call to your attention the frequency of amebic dysentery or amebiasis in the average practice of the general practitioner. My interest in amebiasis was first aroused, as I think is often true, by a case in which I failed to make the diagnosis. I failed even to suspect amebic dystentery, in spite of the fact that I had been called in after two other doctors had failed to give satisfaction because they had failed to produce any improvement of symptoms, and in spite of the fact that the case was almost a textbook picture of amebic dysentery.

Two days later after I also had failed to get any improvement in the case, she was taken to Oklahoma City, 150 miles by ambuance, and when I was told a week later that amebic dysentery had been diagnosed almost immediately and that she had improved markedly following the institution of specific treatment, I resolved at least to examine a stool specimen of any case of diarrhea that did not respond to the usual treatment within 24 hours.

Although I did this for about two years, I was not rewarded with a great deal of success until I found a small detail that has been important in my finding motile ameba in a specimen. I had been having this specimen brought to the office after being passed at home, when I would get a report that there were several suspicious looking objects, but they were not motile so a positive report could not be given. On this particular day a three-year-old boy was brought in with a history of eight or ten bloody bowel movements daily. He did not look as ill as he should have with that history, but expressed a desire for a bowel movement while he was in the office, so a specimen was saved and examined at once. It was positive. My technician remarked how easy it was to examine a specimen immediately after it was passed, as then the ameba were very motile and easily identified.

Since that time I have tried in any case in which I suspected amebiasis to obtain a specimen in the office and examine it at once. Since doing this, I find a greater number of positive specimens. It is usually easy to obtain a specimen either with a proctoscope or a sigmoidoscope in any case that is having acute diarrhea or dysentery. However, in the chronic case where it is suspected, it is usually necessary to give a saline cathartic in order to bring them into the lumen of the bowel. So much for method of diagnosis.

Next, I would like to list a few cases that have come under my care in the last year as examples of the fact that there are many cases in which ambiasis is apparently not even considered, and as a result, the diagnosis is missed.

About a year ago a five-year-old boy came under my care. He had been ill at intervals since the age of two years. A diagnosis of coeliac disease was made at one time as a cause of the intermittent diarrhea. He had had Neoprontosil and Sulfanilamide at intervals and was improved temporarily. He had had several blood transfusions. A diagnosis of colitis due to malaria had also been made, although there never had been a report of a blood smear for malaria. During this entire three years he had had a secondary anemia for which he had had medicine given him in addition to the transfusions. He was first seen by me about a year ago. At that time the stool was positive for round worms and he was given two weekly courses of gentian violet. Subsequent to this time he improved markedly for a period of a month or six weeks, following which he had a relapse of diarrhea and foul smelling stools. At this time a stool specimen was examined warm, and was positive for ameba. It so happened that he was the most difficult case I have ever had to treat and would relapse each time after the usual type of treatment, until finally on December 11, I gave him a course of combined treatment of Carbarsone by mouth and chiniofon retention enemas. Since that time he has apparently remained well, but only last month his father came in with an acute dysentery in which the first specimen

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was found to be positive for ameba, so that it is possible he is now in the chronic or carrier state. I think it will probably be advisable to have a recheck on his stool specimen.

I cite this case to illustrate the fact that this boy had been treated over a period of three years by several doctors, giving symptoms of frequent bloody stools, secondary anemia, and a failure to respond to the usual treatment for either the diarrhea or the specific treatment which was given for malaria, all of this for three years without a stool specimen ever having been examined.

Another case I would like to mention was a woman about 30 years of age, a beauty operator, who gave a history of having been in a hospital in Missouri for two months with a diagnosis of mucous colitis. She thought she had improved sufficiently to return to work but had only worked three days when the diarrhea returned with severe tenesmus and abdominal cramps. The first specimen examined was positive for ameba and after a course of treatment her symptoms left and have not recurred in the six months since. As far as I know a stool specimen was never examined during her two months' treatment in the hospital in Missouri.

We would think a physician grossly negligent who treated a case of frequency, dysuria, and polyuria two months empirically for cystitis or pyelitis without examining the urine to eliminate diabetes, and yet it is not uncommon to find a case of diarrhea or dysentery treated for a month or two without specimens ever having been examined.

It might be of interest to you to know the state health department will send specimen containers in which you may send stool specimens to them for culture and examination for ova, bacillary dysentery, etc., in case a trained technician is not available to you. Also I might mention that the Eli Lilly company has a very excellent film on amebic dysentery, with some very good motion pictures filmed through the microscope, which give you a good picture of the ameba in motion. They are obtainable free by any medical society, for showing.

Let me close by adding a few general statements about amebiasis which some of you may have forgotten.

1. Only two percent or less of cases harboring ameba even have a diarrhea.
2. It has been found in every state in the Union.
3. The incidence is probably around four to eight percent of the general population.
4. It is spread by infected vegetables such as lettuce, cabbage, etc., and by flies.
5. Many chronic cases give symptoms which are often interpreted as indicating the so-called chronic appendicitis, chronic gall bladder disease or sub-acute gastric ulcer.
6. It may be necessary to give a saline to bring the organisms into the lumen of the bowel in the subacute or chronic cases, as they tend to become imbedded in the wall of the bowel.

A good method of examining this type of case is to have them come to the laboratory or office and give them two tablespoonfuls of Magnesium Sulphate and then examine each stool as passed immediately, keeping it warm on a warm stage until four or five stools have been passed.

One man by using this technique reported the finding of 53 patients infested with this organism in five years, none of which had dysentery and none being confined to bed because of the presence of the ameba, with the exception of one patient who had a perforation of the bowel. Many of these had been previously treated for intestinal flu or generalized gastrointestinal disturbances.

Generalized symptoms of the chronic cases have been listed as: constipation, evanescent attacks of diarrhea, anorexia, nausea before or after eating, loss of weight, frontal headaches, sleeplessness and disturbed slumber, poor memory, fever or subnormal temperature, the symptoms being insidious.

I realize that this paper has been somewhat sketchy and perhaps overfilled with a few individual cases, but I did this intentionally in order to impress upon you how easily these cases are treated over long periods of time without the physician's suspecting and ruling out or finding the infection. I think it is very true with this infection, as is said with many others, that it is not in not knowing, but in not looking, that we find our failure, and so if this short talk will result in some of you at least thinking of and finding or ruling out the presence of ameba by the examination of a warm stool specimen on patients giving these symptoms in your practice in the future, I will feel that its presentation has been worthwhile.

DISCUSSION

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Amobic dysentery is an acute ulcerative disease of the large intestine, caused by entameba hystolyca, producing bloody mucus stools, likely to be intermittent in character. It is liable to cause the formation of hepatic subphrenic or pulmonary single abscesses.

Amobic dysentery was for a long time considered to be a tropical disease. However, it is now found in all parts of the United States. It seems to be becoming more prevalent throughout the country, quite probably because of the increased consumption of raw

vegetables. Most truck gardeners fertilize with raw manure which may be contaminated with human secretions. Or the washing of such vegetables in preparation for market may be done in small puddles which may be contaminated. Also it may be spread from contaminated sources by means of house flies. A food handler, who is a carrier, may contaminate several hundred individuals by careless handling of the food.

The diagnosis may best be made by finding motile ameba or the cysts in a stool. A fresh stool or scrapings from an ulcer are the best media in which to look for the ameba. The cysts must be classified by one who is experienced in differentiation of various amebic cysts.

The ameba must live in or on tissues under the mucous membranes of the intestines, or other tissues. They exert a proteolytic effect and dissolve out a cavern. This causes a small grayish ulcer with ragged undermined edges, which are often necrotic in appearance. They have a characteristic musky odor.

Any one of three forms of amebic dysentery is usually seen.

First: Acute, which begins suddenly with severe abdominal pains, bloody mucus stools with a fetid odor, and followed by secondary infection with streptococcic or dysentery bacillus. Chills and fever occur, and usually alternate diarrhea and constipation.

Second: Mild, which has a slow insidious onset and may go for a long period undiagnosed. There are vague signs of indigestion, dyspepsia, abdominal discomfort, loss of strength, and possible loss of weight. There is either moderate diarrhea or constipation.

Third: Chronic, which manifests vague dull distress in the abdomen. The health is below par. There is weakness, nervous symptoms, a low blood count, and the patient may have 15 stools a day. This often simulates pellagra.

Treatment consists of a bland diet and drugs. Probably the most commonly used and most effective of the drugs is emetine, with a dosage up to ten grains used hypodermically. Chiniofon, carbarsone, acetarsone, and vioform are probably among the most frequently used. Irrigations may be employed, consisting of a wide variety of drugs and solutions. This depends on each individual treating the disease, as to the choice of such.

In conclusion, then, amebic dysentery is a disease which occurs rather frequently, and should be looked for at all times.

Mastoiditis: A Case History*

FRANK VIEREGG, M.D.
CLINTON, OKLAHOMA

In presenting this case before this body I am well aware of the limitations and shortcomings of this paper. I have never liked to hear a paper in which the essayist was not able before the end of the paper to give his audience all of the conclusions that should be deduced from a study of the case at hand, but in this case I am not able to do that. Had I been able to diagnose this case correctly before operation, I am not positive that I would have had the temerity to start any operative procedure. But the results, evidently, justified what I did do.

This patient, Mrs. KWA, aged 32, presented herself to the Western Oklahoma Charity Hospital, February 6, 1941. Her chief complaint was of "pain, tenderness, and swelling behind the left ear." Her present illness began about eight weeks ago with an influenzal-like attack which ran a course of two to three weeks. This attack left her weak and exhausted. About that time she began to have an attack of bilateral ear ache. In several days the left ear drum ruptured spontaneously and discharged pus. This ear discharged for about two weeks with a gradual decrease in amount. As the discharge decreased the pain and tenderness behind the ear gradually developed. This swelling and tenderness increased until the time of admission to the hospital. She thinks that she had had a gradual loss of hearing extending back for about a year. During this time she has had no fever to her knowledge, and to my knowledge did not have any medical attention.

Her general health has never been good since she was about 15 years of age. She has had much lower abdominal distress and lower back ache and a marked vaginal discharge for years. At time of admission she thought she was about three months pregnant. In talking with her family physician I found that she had been on antisyphilitic treatment for some time, but just how thorough this was I don't know.

At the time that I first saw her she had the appearance of being much older than her admitted age of 32. Her temperature was 99.4 and respiratory rate of 20.

*Read before the Section on Eye, Ear, Nose and Throat, Annual Session, Oklahoma State Medical Association, May 21, 1941, in Oklahoma City.

The chest examination was essentially negative.

Abdomen: Slight tenderness of the entire lower abdomen with a mid-line mass about the size of a grapefruit.

Head: The first thing one noticed about the head was the position of the left ear. It stood at almost a right angle from the head. There was marked swelling over the entire mastoid region which had a tendency to run downward over the sterno-cleido mastoid muscle. This mass was tender, reddened, with the mushy sort of feeling you could elicit over a subperiosteal edema. This mass also extended backwards over what I would have called an enlarged mastoid region. The canal of the ear was filled with a foul smelling sero-purulent discharge. However, the patient declared that the ear had not discharged for several days. The posterior superior quadrant of the canal presented a characteristic "sagging." The drum was inflamed, lacked lustre, but did not seem to be bulging. There was a small hole in the drum membrane. A rather superficial tuning fork test done on the two ears in the hospital ward did not show any marked reduction of hearing on this left side. The Meber test did not lateralize. The X-ray examination did not show much difference on the two sides, but showed both sides to be markedly sclerosed, throughout the entire mastoid processes. The report from the X-ray laboratory read, "Both mastoid areas equally cloudy."

The Wasserman report showed a negative Wasserman reaction. The spinal fluid Wasserman was negative. The Kahn Reaction was negative. The urinalysis showed only a trace of albumin that was in any way out of line. There were 3,800,000 RBC. The white count showed 16,800 with 84 percent polys.

I made the usual mastoid incision in this case, that is, parallel and posterior to the attachment of the pinna and about one-fourth an inch away. As soon as the periosteum was opened there was a great amount of pus that showed in the wound, together with a large amount of old blood clots, which was a rather unusual finding. As is my custom in such a case, I removed the cortex from an extremely hard, eburnized, mastoid process. The mastoid process instead of being very cellular and full of pus, had only a small amount of a serous-appearing, straw-colored fluid, and this was not under pressure. The bone was very hard, concrete-like in texture, and I could not say that it either was or was not infected. I cleaned out this area down to the tympanic antrum and the tip cells of the mastoid.

When I had reached what I thought was the posterior margin of the mastoid cells I found an area that looked like a few more cells that apparently were filled with something, that had it not been in the mastoid area, I would have called polypoid tissue. I pushed on this area with a curette and the bowl of the curette passed out of sight in the direction of the occipital bone. This was followed by another gush of pus and a large amount of old blood clots. After this area was exposed by a counter incision, I found an area about one and one-half inches in diameter that was filled with this same sort of thing, that is, a substance that had all the appearances of nasal polypoid material, blood clots and pus. I cleaned this all out and found that it extended through both tables of the skull and was but loosely adherent to the underlying dura.

The dura was but very slightly inflamed, if at all, and the mass of stuff easily curetted off. I had some of this sent to the laboratory for examination. The report came back: "The gross specimen consists of two soft, red, ragged, irregular pieces of tissue, each about eight mm. Microscopic examination shows a very vascular, granulomatous structure intensely and diffusely infiltrated with leucocytes throughout. No evidence of malignancy and no definite evidence of any specific type of inflammation. Diagnosis: Subacute suppurative inflammation and granulation. Gumma can not be entirely excluded."

I filled this wound with one-half inch iodoform gauze packer strip and placed only three silkworm sutures. As a glance at this woman's postoperative temperature chart will show, she had a most uneventful recovery—her temperature never going above 99 during the rest of her stay in the hospital.

Whether this condition originated in the mastoid and spread to the occipital bone, or originated in situ, I am unable to say. I am not even positive that she ever had any mastoid trouble, but certainly she had a middle ear infection. And if I had known what that dark area behind the mastoid process in the X-ray was, I might not have had the nerve to operate.

In this case I am not able to come to any definite conclusion as to what the real nature of this thing was. I have never heard of a polypoid degeneration of a skull bone but that is what is most nearly resembled. It might have been a gumma, or doesn't one have a gumma of a flat bone? Could it have been an infected bone cyst, or doesn't one have a cyst of a flat bone? Certainly it did not have any of the markings of a bony tumor, and the microscopic examination also seemed to rule that out. Might it be a thrombosis of a terminal artery at this point? If so, why the polypoid appearance of the bone involving both tables?

• THE PRESIDENT'S PAGE •

Happy New Year

Nineteen hundred forty-one is now past history; have the accomplishments of our profession been what we would desire? A correct inventory of the achievements of the medical profession in America will show that there is much for us to be proud of. The whole-hearted cooperation with the Federal Government in preparing for the present emergency has been surpassed by no group, there has been full and complete aid given to induction boards, this fully and with no compensation and at much personal sacrifice in many instances. While the Army Medical Corps are still in need of more medical officers, there is no question that this demand will be met and that the efficiency of the United States Army will not suffer on account of a shortage of medical men.

Let us redouble our efforts to make 1942 a record year in American Medicine. We must see that this emergency does not reduce the high standards of medical education. It goes without saying that every member of the Oklahoma State Medical Association will do his full part.

May each member of our profession enjoy a most happy and prosperous New Year.

Finis. Bewley

President.

Antirabic Vaccine

SEMPLE METHOD

U. S. Government License No. 98

1. Patients bitten by suspected rabid animal, on any part of body other than Face and Wrist, usually require only 14 doses of Antirabic Vaccine.

Ampoule Package.....$15.00

2. Patients bitten about Face or Wrist, or when treatment has been delayed, should receive at least 21 doses of Antirabic Vaccine. (Special instructions with each treatment.)

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EDITORIALS

PROCUREMENT AND ASSIGNMENT

The Procurement and Assignment Service was established by the President on October 30, 1941. Today we are at war. Every doctor will be asked to register with the Office of Procurement and Assignment; all men under 45 are subject to service under the order of the Selective Service Boards.

The address of Dr. Sam F. Seeley before the recent meeting of the Secretaries Conference, sponsored by the Oklahoma State Medical Association, appears in this issue of the Journal. Every doctor in the State should read this address before filling out the accompanying enrollment form addressed to Doctor Seeley. The prompt execution and return of this blank will save delay and expense and, for some, possibly the embarrassment of being ordered into service. *See insert following Page* 26.

The doctors of Oklahoma are to be commended for their relatively high response to the A.M.A. questionnaire. It is doubtful if the doctors of any other state in the union surpassed them. But because of procrastination or indifference on the part of some, the immediate response was not more than 60 percent. The State Association office spent much time and considerable money to bring the registration to approximately 99 percent. The A.M.A. questionnaire represented a deliberate effort to accumulate valuable data in anticipation of war. Much additional biographical and professional information has been gathered and made available. This comprehensive appraisal of each member of the medical profession and his relation to the civilian medical needs of his community makes equable selection and placement more nearly possible than it could be otherwise.

If we act promptly, it is possible, under the Procurement and Assignment Service, for the medical profession to make use of this accumulate knowledge in the assignment of the individual doctor to the service for which he is best suited, whether it be civilian or military. For those who procrastinate, such a selective assignment may be impossible. Likewise, delay may lessen the assurance of a commission in keeping with age, experience and abilities.

Of all the doctors in the United States responding to the A.M.A. questionnaire, approximately 60 percent volunteered their services. Now is the time to make this offer good. We are no longer deliberating in anticipation of war. We are facing an emergency and it is time to act.

The present estimate indicates that the army alone now needs 3,000 doctors. Approximately 4,000 internes are eligible for reserve commissions, but current reports indicate that not more than 50 percent have made application for a commission. We cannot wait for them to complete their intern services. They will be needed at home or in the army and navy as soon as they are ready. Medical students who become over-zealous in their desire to fight should be convinced that they can serve best by remaining in medical school in order that they may conserve the man hours they have devoted to medical education, and that they may be ready to fill the breach which must arise through the exigencies of a hard fought war for the duration.—L.J.M.

WAR AND OPPORTUNITY

In spite of our cherished way of life, the time has come when all professions, all industries and agencies must accept a certain degree of managerial direction. The medical profession may find comfort in the fact that the regimentation arising through the exigencies of war leave the doctor more initiative and freedom in the pursuit of his art than is vouchsafed to the members of any other participating group.

Though working under orders for the benefit of all mankind, the time-honored relationship between doctor and patient affords moments of intimate contact, which are vitally individualistic and productive of spiritual values wholly beyond the realm of military control. Though these moments of contact may be stressful and fleeting, they are charged with the unquenchable realities of life which give men strength to die for others. These are moments which merit a sympathetic touch of the hand, a kind word, and a swift interchange of heart searching appraisal. Skill without compassion is a cold impersonal thing, justifiable on the battle front, but out of place in the medical service.

The doctor in the service of his country should never lose sight of the fact that he has a rare opportunity to make the word "service" a living reality to sick and wounded soldiers. By thus preserving the cherished relationship between doctor and patient under the stress of war, it may become more worthy of preservation in time of peace.—L. J. M.

HOW A GREAT DIAGNOSTIC BOON MAY BECOME A BOOMERANG

Though we have had nearly forty years experience with x-ray as a diagnostic agent in diseases of the chest, attention should be called to the fact that doctors too often expect the x-ray to give the final word in doubtful cases, especially if tuberculosis is the disease in question. A careful consideration of the most authoritative knowledge available seriously disturbs this unwarranted faith.

The report of the roentgenologist may or may not contain all available information. This depends upon the training, experience and judgment of the roentgenologist and the ever present vicissitudes of x-ray interpretation. He must recognize the known wide variations of the normal. He knows that pathology may be present without making an impression on the x-ray, and that the significance of existing x-ray shadows may be difficult to determine.

The unwarranted dogmatic diagnosis occasionally reported by the roentgenologist, if accepted by the attending physician, may lead to disaster. From the general practitioner's standpoint, with few exceptions, an x-ray of the chest should not be requested until a thorough physical examination and all indicated available laboratory tests have been made. Such a procedure suggests the x-ray's limitations and places it where it belongs, namely, among other valuable diagnostic aids. This will help overcome an unfortunate fallacy which often leads the layman to believe that the diagnostic x-ray will seal his fate, whether it be good or bad.

In support of the above discussion, the writer quotes from some of the most authoritative sources: Osler[1] once said, "More than any others, radiographers need the salutary lesson of the dead house to correct their visionary interpretation of shadows, particularly those radiating from the roots of the lungs."

These are living words, vibrant with Osler's wisdom and foresight. Though they were recorded more than twenty years ago, they serve as a timely warning against the present danger of lack of knowledge, overenthusiasm and undue confidence.

This, from Allen K. Krause[2] in 1924, is equally significant: "'Enlargement of the mediastinum' or 'chronic mediastinitis' runs through the x-ray reports, especially those of children's examinations, like a song; with a monotony that makes one wonder whether mediastinal changes are not the normal in the young."

The following quotation from the National Tuberculosis Association[3] Diagnostic Standards, 1926, implies special knowledge for the proper interpretation of x-rays of the chest

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in children. "Interpretation of films should be made by an experienced physician, who is familiar not only with chest films in general, but with films of children's lungs in particular. He should also have a clinical background, and the interpretation should not be independent of careful consideration of history, symptoms and physical examination."

John A. Bigler[4] makes this significant statement: "It must be remembered that many types of pathologic changes may give shadows of the same opaqueness, etc., and that differentiation can be obtained only by consecutive roentgenograms, by the knowledge of other laboratory data and by the history and clinical and physical observations. . . . It is in the borderline cases that the most mistakes are made; the clinician reaches out for all available laboratory data and is given a positive diagnosis by the roentgenologist."

The following is from the report of a special committee appointed by the National Tuberculosis Association[5]. "To one observer, shadows noted are indicative of disease; to another, they are not evidence of a pathological process; to one they represent lesions of clinical significance; to another they suggest changes of no moment. . . . The normal chest from a radiographic standpoint is subject to such wide variations within normal limits as to be beyond possibility of exact description."

This very limited discussion and these references are offered with the hope of bringing about a consciousness of the diagnostic limitations of the x-ray and the danger of blindly accepting the roentgenologist's diagnostic report. It should be distinctly understood that they should not discourage the use of this valuable diagnostic agent which is ever becoming more important in the practice of medicine.—L. J. M.

(1) Osler, William; and McCrae, Thomas: The Principles and Practice of Medicine, New York: Appleton and Century, 1920, p. 208.
(2) Krause, A. K.: The Spread of Tuberculous Infection in the Body, Am. Rev. Tuberc. 9:83, April, 1924.
(3) National Tuberculosis Association: Diagnostic Standards, 1926.
(4) Bigler, John A.: Interpretation of Roentgenograms of the Chest in Children Based on Observations at Necropsy. Am. Jr. Diseases of Children, Vol. 38, Nov., 1929.
(5) National Tuberculosis Association: Clinical and Roentgen-Ray Findings in the Chests of Normal Children. Am. Rev. Tuberc. 6:331, 1922.

"CAVITIES IN THE SILICOTIC LUNG"

Under this title, Arthur J. Vorwald[1] points out the fact that the silicotic lung may present three distinct types of cavities:

"(1) Cavities associated with a *typical tuberculosis* that is little modified by coexistent silicosis.

(2) Cavities occurring in areas of *tuberculo-silicosis*, an extremely chronic condition resulting from the combined local effect of tubercle bacilli and silica dust. In them, the results of infection are obvious and tubercle bacilli are usually demonstrable.

(3) Cavities of the so-called *anemic type* which develop within areas of massive fibrosis, but show no evidence of causative organisms or cellular reaction."

Typical cavities are usually found in cases of first degree silicosis or in those with slight nodulation. In such cases the behavior of tuberculosis is essentially the same as in those who have not been exposed to silica. The phenomena accompanying such cavities are well known to those who follow the course of uncomplicated pulmonary tuberculosis. Tubercle bacilli are readily found in the sputum coming from such cavities.

Tuberculo-silicotic cavities occur in the more advanced silicotics. The cavities are usually unilocular and they are found in the dense fibrotic masses so common in advanced silicosis. These cavities are limited by the firm fibrotic tissue which discourages the usual softening and extension with multilocular formation. The content of such cavities is purulent, but quite black. Tubercle bacilli are much less numerous and intrapulmonary and extrapulmonary complications are less frequent than in the non-silicotic. On account of obliterative arteritis and phlebitis accompanying the dense fibrosis, pulmonary hemorrhage is less frequent than in uncomplicated pulmonary tuberculosis. For the same reason hematogenous spread is uncommon and the symptoms of toxemia are less obvious. Physical signs are not so easily elicited and the x-ray may not reveal the presence of cavities unless the technique calls for more than the average penetration.

Anemic cavities also occur in the conglomerate fibrotic masses found in advanced silicosis. They are due to the obliterative changes in the blood vessels, giving rise to avascular areas with necrosis, autolysis and liquefaction. The cavities are usually small, oval or button-hole in shape. The content is thin, black, nonpurulent; tubercle bacilli are not found even by animal inoculation. The diagnosis of this type of cavity presents the same difficulties found in the tuberculo-silicotic type.

This discussion of lung cavities in the silicotic supplies a good example of the varied clinicopathological problems arising in the slowly moving course of a very interesting and important disease.—L. J. M.

1. Vorwald, Arthur J.: Cavities in the Silicotic Lung. A Pathological Study with Clinical Correlation. The Amer. Jr. of Path., Sept., 1941. P. 709, Vol. XVII, No. 5.

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MEDICAL PREPAREDNESS

The Association has for the past month been giving complete cooperation to the American Medical Association and all Governmental Agencies, both military and otherwise, on Medical Preparedness. In order that the profession may have the latest information available concerning the Medical Preparedness program of the Association, the duties of the County Societies, and the present situation concerning the profession and military duty, as well as the program of Civilian Defense, that information is herewith reported as of January 15.

Oklahoma State Medical Association Medical Preparedness Committee

In July of 1940, the Council of the Association established the Committee on Medical Preparedness. The purpose of this committee was to correlate the efforts of the County Socities in securing a 100 percent return of the A.M.A. Medical Preparedness Questionnaire and to act in any other capacity that might be related to the Association and National Defense.

It will be this committee plus the committees of the County Societies that will act as liaison contacts between the Office of Procurement and Assignment, the Association and the membership of the County Societies.

The State Committee, composed of a chairman, vice-chairman, and a representative from each Councilor District, is listed below:

Chairman—Henry H. Turner, Oklahoma City

Vice-Chairman—L. S. Willour, McAlester

Councilor District Representatives:

One	John L. Day, Supply
Two	J. M. Bonham, Hobart
Three	J. M. Watson, Enid
Four	Tom Lowry, Oklahoma City
Five	J. L. Patterson, Duncan
Six	W. Albert Cook, Tulsa
Seven	Robert M. Anderson, Shawnee
Eight	F. L. Wormington, Miami
Nine	J. M. Harris, Wilburton
Ten	John A. Haynie, Durant

Advisory Members

Robert U. Patterson, Oklahoma City

Grady F. Mathews, Oklahoma City

Louis H. Ritzhaupt, Oklahoma City-Guthrie

The Chairmen of the County Committees are as follows:

Alfalfa	L. T. Lancaster, Cherokee
Atoka-Coal	J. S. Fulton, Atoka
Beckham	E. S. Kilpatrick, Elk City
Blaine	L. R. Kirby, Okeene
Bryan	R. E. Sawyer, Durant
Caddo	R. E. Johnston, Anadarko
Canadian	J. T. Phelps, El Reno
Carter	F. W. Boadway, Ardmore
Cherokee	J. S. Allison, Tahlequah
Choctaw	E. A. Johnson, Hugo
Cleveland	W. T. Mayfield, Norman
Comanche	Fred W. Hammond, Lawton
Cotton	M. A. Jones, Walters
Craig	Paul G. Sanger, Vinita
Creek	G. C. Croston, Sapulpa
Custer	McClain Rogers, Clinton
Garfield	J. R. Walker, Enid
Garvin	John R. Callaway, Pauls Valley
Grady	L. E. Woods, Chickasha
Grant	E. E. Lawson, Medford
Greer	J. B. Hollis, Mangum
Harmon	S. W. Hopkins, Hollis
Hughes	A. L. Davenport, Holdenville
Jackson	E. S. Crow, Olustee
Jefferson	L. L. Wade, Ryan
Kay	L. H. Becker, Blackwell
Kingfisher	John W. Pendleton, Kingfisher
Kiowa	B. H. Watkins, Hobart
Latimer	J. S. Callahan, Wilburton
LeFlore	O. M. Woodson, Poteau
Lincoln	John S. Rollins, Prague
Logan	W. C. Miller, Guthrie
Major	M. R. McCroskie, Fairview
Marshall	J. L. Holland, Madill
Mayes	V. D. Herrington, Pryor
McClain	W. C. McCurdy, Purcell
McCurtain	W. B. McCaskill, Idabel
McIntosh	D. E. Little, Eufaula
Murray	Paul V. Annadown, Sulphur
Muskogee	H. T. Ballantine, Muskogee
Noble	T. F. Renfrow, Billings
Okfuskee	A. S. Melton, Okemah
Oklahoma	Horace Reed, Oklahoma City
Okmulgee	R. L. Alexander, Okmulgee
Osage	C. H. Guild, Shidler
Ottawa	F. L. Wormington, Miami
Pawnee	R. E. Jones, Pawnee
Payne	R. E. Waggoner, Stillwater
Pittsburg	R. K. Pemberton, McAlester
Pontotoc	M. M. Webster, Ada
Pottawatomie	James M. Byrum, Shawnee
Pushmataha	D. W. Connally, Antlers
Roger-Mills	J. Worrall Henry, Cheyenne
Rogers	R. C. Meloy, Claremore
Seminole	Claude S. Chambers, Seminole
Stephens	W. S. Ivy, Duncan
Texas	R. B. Hayes, Guymon
Tillman	J. D. Osborn, Frederick
Tulsa	James L. Miner, Tulsa
Wagoner	J. H. Plunkett, Wagoner
Washington-Nowata	J. V. Athey, Bartlesville
Washita	A. H. Bungardt, Cordell
Woods	O. E. Templin, Alva
Woodward	John L. Day, Supply

Any member who desires to secure information concerning Medical Preparedness should contact the chairman of his county society's committee.

Office of Procurement And Assignment

On October 30, 1941, the President of the United States approved the establishment of the Office of Procurement and Assignment for the medical, dental, and veterinary professions. The Directory Board is composed of:

Dr. Frank H. Lahey, Chairman, President, American Medical Association, Boston; Dr. C. Willard Camalier, Chairman, Dental Preparedness Committee, American Dental Association, Washington, D. C.; Dr. Harold S. Diehl, Dean, Medical Sciences, University of Minnesota, Minneapolis; Dr. James E. Paullin, Atlanta Ga.; Dr. Harvey B. Stone, Associate Professor of Surgery, Johns Hopkins University School of Medicine, Baltimore; and Dr. Sam F. Seeley, Executive Officer, Washington, D. C.

IMPORTANT ANNOUNCEMENT

YOUR ATTENTION IS DIRECTED TO THE INSERT WHICH FOLLOWS PAGE 26, AS IT PERTAINS TO THE PROCUREMENT AND ASSIGNMENT QUESTIONNAIRE WHICH HAS APPEARED IN THE DECEMBER 27, 1941 AND JANUARY 3, 1942 JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION AND TO WHICH REFERENCES HAVE BEEN MADE IN THIS ISSUE.

THE OFFICE OF PROCUREMENT AND ASSIGNMENT, IT SEEMS, WILL CONTINUE TO OPERATE AS EXPLAINED IN THE FOLLOWING PARAGRAPHS, BUT A NEW QUESTIONNAIRE FOR MEMBERS OF THE PROFESSION TO COMPLETE WILL BE MADE AVAILABLE IN THE NEAR FUTURE.

OPERATION

The existing facilities of the American Medical Association, American Dental Association and American Veterinary Medical Association have been graciously offered to the Procurement and Assignment Service. A regional office has been set up in Chicago in which questionnaires, rosters and punch card data pertaining to all physicians, dentists and veterinarians will be maintained and kept up to date. The Committees on Medical Preparedness of the American Medical Association, American Dental Association and American Veterinary Medical Association will be utilized in the conduct of surveys, dissemination of information to the professions and the recruitment of personnel as requistioned by various governmental agencies. The Procurement and Assignment Service will maintain a central office in Washington, D. C. The regional office in Chicago will maintain the rosters. A board in each of the nine corps areas will consist of representatives of medical education, hospitals, the Medical Preparedness Committee of the American Medical Association and two civilian practitioners in each corps area. These boards will act in an advisory capacity with the view of assuring adequate professional care of the civilian and industrial populations within the area and in the selection of those professional people within the area who can be spared for service with the armed forces. They will function through the existing state, district and county committees on medical preparedness. The medical, dental and veterinary medical needs will be considered by committees of each of the respective professions.

After a complete survey has been made and the availability of personnel has been determined, the central office will then be prepared to furnish to all requisitioning agencies rosters of those available for duty within their organizations. The result of questionnaires clearly indicates that large numbers of physicians, dentists and veterinarians will voluntarily make themselves available for positions which will guarantee adequate professional care to the civil, industrial and military requirements. It is planned that in the very near future every physician, dentist and veterinarian will receive a questionnaire from the Procurement and Assignment Service on which he will be asked to designate his preference regarding the capacity in which he desires to contribute his maximum efforts to the successful culmination of the present national emergency. Alternate preferences will be stated and every professional man will be certified by the Procurement and Assignment Service as having volunteered his services.

From rosters maintained as a result of the foregoing information, requisitioning agencies will be furnished the names of those available as the needs arise, should expansion of the defense program require additional professional personnel. This plan is designed primarily to assure adequate personnel for the armed services and to avoid unwarranted dislocation of professional people from their present localities.

Address of Dr. Sam F. Seeley, Executive Officer

At the Second Annual Secretaries Conference of the Association, the principle speaker was Dr. Sam F. Seeley, Executive Officer of the Office of Procurement and Assignment. Because of the importance of the Office of Procurement and Assignment and its relation to every physician, Doctor Seeley's speech is hereby printed in full. Every member of the Association should read it to its conclusion.

Ladies and Gentlemen: Before entering upon a discussion of the functions of the new Procurement and Assignment Service of the Office of Defense Health and Welfare Services, recently organized in Washington, D. C., I wish to convey to you the appreciation of the Directing Board of the Procurement and Assignment Service for your splendid and whole-hearted cooperation in arranging this meeting on such a short notice. Dr. Frank Lahey of Boston, Chairman of the Directing Board of the Procurement and Assignment Service has requested that I appear before you, in order that I may explain to you the mission of the Procurement and Assignment Service.

I am certain that it will be a great source of satisfaction to you to know that the medical profession of this country anticipated many months ago the necessity of formulating a program which would ensure the best professional care of the armed forces, the industrial and civil agencies of our country. Under the direction of the President, the Office for Emergency Management has set up three distinct agencies charged with mobilization of our national resources in order that the best possible medical care may be given to every member of our country. These three agencies are as follows: (1) The Health and Medical Committee of the Office of Defense Health and Welfare Services, which functions in an advisory capacity; (2) The Office of Scientific Research and Development, which is conducting a broad program of medical research under the auspices of Doctor Richards of Pennsylvania, Chairman of the Committee on Medical Research, and (3) The Procurement and Assignment Service of which I will speak later.

The Health and Medical Committee is composed of a "main" committee, consisting of Doctor Abell of Louisville, Ky., the Surgeons General of the U. S. Army, U. S. Navy, the U. S. Public Health Service, and Doctor Richards. Subcommittees under the Health and Medical Committee assist in formulating national policies in reference to Medical Education, Hospitalization, Industrial Health and Medicine, Nursing, Negro Health and Dentistry.

All matters pertaining to medical research are carried out by the Medical Division of the National Research Council of the National Academy of Sciences. Doctor Weed, who is Chairman of the Medical Division of the National Research Council, has organized ten major committees with the necessary subcommittees, which are engaged in carrying out every conceivable angle of medical research which will contribute to the national emergency program. More than 200 of the most noted scientists of this country are engaged in carrying out

research problems under the auspices of the National Research Council. Liaison officers from the Army and Navy carry problems from the Professional Service Division of those Services to the various committees of the National Research Council. These committees transmit to the Surgeons General resumes of the best known method of treatment of all diseases and injuries. Research problems are drawn up and allocated to laboratories throughout the entire country. The National Research Council committees assist in drawing up of memoranda which are transmitted to the medical officers of the Army and the Navy and which may be used as a basis for treatment along the most modern lines.

As early as June, 1940, the Surgeon General of the United States Army requested that the American Medical Association assist in the procurement of the necessary personnel for an Army of one and one-half million men. The American Medical Association started immediately in the drawing up of rosters of all of the physicians of the United States. Shortly after this, the American Dental Association also drew up rosters of the dental profession. At the present time the American Veterinary Medical Association is engaged in drawing up rosters of all of the practicing veterinarians of the country. These rosters have served to assist the Surgeon General of the Army in obtaining medical department personnel to carry out the duties incident to the maintenance of an Army of 1,700,000 men.

In April, 1941, the Subcommittee on Medical Education of the Health and Medical Committee passed a resolution to the "main" committee recommending that a central agency be set up for the purpose of procuring and assigning medical, dental and veterinary personnel to the armed services with a view of maintaining adequate professional care for the industrial population and the civilian population of this country. This resolution was accepted by the Health and Medical Committee, and at the meeting of the American Medical Association in Cleveland in June, 1941, this resolution was endorsed and passed back to the Health and Medical Committee. This Committee met on October 22 to initiate the development of a Procurement and Assignment Service. At that meeting the members of the Health and Medical Committee sought the consultation and advice of the leading medical and dental people of the United States. Liaison officers from practically every Government agency, including Selective Service and the Office of Civilian Defense, aided in drawing up this program. At this meeting a Commission was appointed by the Health and Medical Committee which was requested to draft a program for a Procurement and Assignment Service. At this point development moved rapidly forward. The Commission met on October 28 and recommended the setting up of the Procurement and Assignment Service. Their recommendations were forwarded to the President, to the Director of the Office of Defense Health and Welfare Services, and were approved by the President on October 30. The President has named the following members to serve on the Directing Board: Dr. Frank H. Lahey of Boston, Chairman; Dr. C. Willard Camalier, Washington, D. C.; Dr. Harold S. Diehl, Minneapolis, Minn.; Dr. James E. Paullin, Atlanta, Ga., and Dr. Harvey B. Stone, Baltimore, Md. Dr. Sam F. Seeley, at that time on duty in the Office of the Surgeon General, was named as Executive Officer to the Directing Board and by direction of the President, has been transferred from the War Department to serve as Executive Officer in a full-time capacity. Committees were formed immediately on Dentistry, Hospitals, Industrial Health, Information, Medical Education, Negro Health, Public Health, Veterinary Medicine, and Women Physicians. Liaison officers have been assigned by the Army, Navy, U. S. Public Health Service, Veterans Administration, Selective Service System, U. S. Civil Service Commission, Office of Civilian Defense, and the Division of Health Services, Children's Bureau, Washington, D.C.

The primary objective of the Procurement and Assignment Service is to maintain a complete list of all physicians, dentists, and veterinarians of the entire country with detailed information as to age, physical condition, professional qualifications, and availability for service in the various military, civil and industrial agencies of the country. This information has been tabulated on the punch card system. All agencies of the Government which utilize the services of physicians, dentists and veterinarians will make requisitions upon the Procurement and Assignment Service for personnel. These requisitions will state the age, professional qualifications, and the physical condition of those professional people whose services are desired by these agencies. Lists will be prepared from the rosters and forwarded to the requisitioning agency. These agencies will then enlist the services of these professional people. At the same time, the Procurement and Assignment Service will notify the people whose names have been tendered to the requisitioning agency that they have been chosen to enter upon their new duties.

Through the various committees serving the Procurement and Assignment Service, surveys are rapidly being made of all of the facilities of the United States. For example, every hospital will be canvassed and they will be asked to state the minimum number of professional people required to maintain adequate care of the sick of these institutions. In the same manner, the needs of school faculties, industrial organizations, national, state and county health organizations, and other agencies, both military and civil, will be surveyed.

The organization of the Procurement and Assignment Service is practically complete. The central office in Washington, D. C., has been set up, and a Regional Office is being set up in Chicago, which will maintain the rosters of the American Medical, Dental and Veterinary Medical Associations. Committees are being named in each of the nine Corps Areas, which will serve in an advisory capacity to the Corps Area Commander. Incidentally, these geographical Corps Areas of the Army coincide exactly with the Defense Areas set up by the Office of Civilian Defense. The Committees serving in each Corps Area will consist of a representative of medical education, a representative of hospitals, a representative of the national preparedness committee, and at least two well-known civilian practitioners of that territory who are acquainted with the professional people and with the needs of those areas. At present the committees are being set up within the Corps Areas in each of the States and these State Committees will be asked in the very near future to develop committees within their districts and counties in order that the many functions of the Procurement and Assignment Service may be carried down to the last county of the country. I am now en route to Chicago where, on December 18, the Directing Board will meet with the members of the Committees on Preparedness of the American Medical, Dental, and the Veterinary Medical Association, at which time a program will be drawn up and shortly thereafter the States will be asked to complete the organization within their area.

The functions of this Service are broadly two in character, procurement and assignment. In order to maintain the existing rosters and to determine the professional qualifications of professional personnel, also to determine the needs of the medical training institutions, hospitals, the health departments, industrial organizations and civil communities, the committees of each county will forward to the central office through their State committees information which will serve to ensure proper distribution of professional personnel in every capacity. These committees will be asked to serve in the conduct of surveys by the various committees of the Procurement and Assignment Service. To date, more than 1,900 of the more than 3,000 counties of the United States have been completely surveyed and reports are now on file in the office upon which the needs of the community and the availability of personnel of those communities may be judged.

Assignment of professional personnel will be based upon the information gained through these various com-

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munities. As far back as July of 1940 more than 50 percent of the first 150,000 physicians who answered questionnaires volunteered for military service in case of war. Under the present circumstances and in view of recent military developments, it is anticipated that the majority of all physicians, dentists and veterinarians are now ready to volunteer for active military service in any capacity which may be best suited to the national defense program. It is hoped that the functions of the Procurement and Assignment Service may be facilitated by the early volunteering of the professional people throughout this country. It is our hope that so many will volunteer to serve in any capacity which the Service may predetermine that we will be able to satisfy at an early date the needs of the military service and may turn our attention to an equally important function, that of avoiding disproportionate dislocation of professional people from communities where their services are needed. In this way, the Procurement and Assignment Service expects to minimize the dislocation of professional people from key positions in the civil and industrial communities.

Let us turn for a moment to the assets in terms of professional people of our country today. At the present time, any man under the age of 28, if physically able, is required to enter the military service. Approximately 60 percent of those graduating after 12 months of internship are under the age 28. The majority of these men are physically fit and must enter upon military service. The Selective Service System has deferred these men for a time sufficient to guarantee graduation from medical school and the completion of 12 months of internship. These students have been asked that during the last two years of medical school training they join the Medical Administrative Corps Reserve or a Reserve Corps in the Navy of a like nature. After graduation from college, they are asked to join the Medical Corps Reserve of the Army or the Navy in order that they may be sent to active duty immediately upon completion of the 12 months internship. It becomes apparent that if a medical student has not identified himself with the Army or the Navy after the completion of 12 months of internship, and he is under the age of 28, he may be drafted as a private. For this reason, it is necessary that all men engaged in medical education must seek a Reserve Commission in the Army of the United States or in the Reserve Corps of the Navy, in order that their induction into the military service will result in the utilization of their medical training. During the World War of 1917, the draft age was higher than 28. At the present time, we are unable to state whether the draft age will be raised and we are unable to surmise what age will be set if the draft age is raised. For this reason, the Directing Board of the Procurement and Assignment Service recommends that every doctor who is physically able identify himself as willing to enter the military service in case he is needed. It is anticipated that within the next 60 days every physician, dentist and veterinarian of this country will be canvassed and will be asked to return a questionnaire to the central office of the Procurement and Assignment Service. At that time an estimate will have been made of the number of professional people required by each of the Government agencies, the civil and industrial agencies, and the civil communities. It is anticipated that the names of professional people will be set aside so that they may be forwarded as the needs of the military service expand. Each recipient of a questionnaire will be asked to state his first, second, third and possibly more choices as to what type of service he would prefer to render. Upon analysis of these questionnaires, it is hoped that a sufficient number will have volunteered to serve in the armed forces, in the industrial plants, and in other agencies which would require dislocation from their present locality, so that a minimal disruption of the present conditions will result.

In closing, I wish to impress upon you the necessity of all of those physically fit volunteering to serve in the military services. It is obvious that there are not enough physicians, dentists and veterinarians in the age group under 28 to satisfy the military needs. Let us hope that voluntary enlistment will be sufficient that the draft age will not have to be raised and above all let us hope that it will not become necessary to consider legislation which would make it mandatory that professional people who are physically fit be forced into the military service against their will.

A Call to Service

DR. FRANK H. LAHEY
President of the American Medical Association

The establishment by the government of a Procurement and Assignment Agency properly places the responsibility for obtaining medical personnel in the hands of the medical profession. The success of this agency depends entirely on a few basic features: the complete cooperation of medicine in what even the most doubting must now admit is a truly national emergency; an unqualified willingness to serve the country however, whatever and whenever required; and a firm purpose to establish the fact that medicine intends to maintain its place in the forefront as it always has when a patriotic example is of such significance.

ATTENTION

Should any physician desire to make application for a commission in the Medical Corps, he should address his communication to: Headquarters, Second Military Area, 325 Federal Building, Oklahoma City, and for commissions in the Naval Reserve to Naval Recruiting Station, 3rd Floor, Post Office Building, Oklahoma City.

Responsibility . . .

War times place a heavier responsibility than ever upon the medical profession. Helping to keep the nation and its individual citizens healthy and strong, is a task which may make heavy demands upon the doctor's physical and nervous endurance.

As a wholesome, beneficial and timely food, and as a most pleasant one, for yourself and your family, eat . . .

Emergency Medical Service For Civilian Defense

Emergency Medical Service for Civilian Defense has been established on a uniform basis in each state under the direction of the Office of Civilian Defense, Washington, D. C., F. H. LaGuardia, Director. Emergency Medical Service, will be maintained upon the local level of the county unit with a chief of emergency medical service in each county. In Oklahoma, Dr. Grady F. Mathews, Commissioner of Health, has been appointed to the State Committee on Health and Housing, which in turn will supervise and coordinate the work of the Emergency Medical Care committees after their appointment by the local County Director of Civilian Defense.

Doctor Mathews' address on the subject of Emergency Medical Care, given before the Second Annual Secretaries Conference, graphically details the working of this committee. It is herewith reprinted in full. It should be expressly understood that the State Medical Association is in no way connected with the establishment, appointment, or operation of emergency medical care in the county setup other than the Association's representation on the State Committee on Emergency Medical Care in an advisory capacity by Dr. Finis W. Ewing, President of the Association, and Dr. Henry H. Turner, Chairman of Medical Preparedness.

Dr. Grady F. Mathews' Address On Emergency Medical Care

Gentlemen: There is no longer any need to explain that conditions facing this country and this state are today most serious. The vicious, unexpected attack of axis bombers has made only too clear what was but remotely realized by most of us a short time ago.

Up until a week ago today what thinking had been done about preparedness was geared to the motto "National Defense." Considerable thinking was done in an effort to devise a method for protecting the lives of civilians. Rather detailed arrangements were worked out, on paper. Since last Sunday, those plans have been brought into the open, so to speak, carefully considered, discussed and vitalized into a plan of action which is being set into motion with surprising speed.

Members of the medical profession have for the past few months heard and read many hints as to the role they would play in defense activities. They themselves have realized that they would have many, responsible duties—but just what those duties would be and when and where has been quite vague.

I would like at this time to give you a word picture, if I can, of some very definite, very important duties which must have the cooperation and work of members of the medical profession.

I have been made state chairman of the committee on health and housing, which is one of the state defense committees. Mr. J. William Cordell is executive chairman of the state defense committee, and health and housing is one of the subordinate groups under the general, all inclusive plan for defense activities among civilians in Oklahoma. You understand of course that a similar setup is being put into operation in all states, under the nation-wide direction of Mayor LaGuardia of New York.

May I at the start emphasize this fact. The work of the health and housing committee, both the state committee and the county committees, has been prepared in order that the state may have a *unified* method to meet any emergency. Such plans have been coordinated with other important state defense committee programs. We are prone at a time like this to begin and think along many lines, all seeking the common goal and all worthy of commendation, but resulting in confusion because of so many different groups and plans. We must think and work together—using one feasible plan. The simple truth is that we must get together, because there is much for each of us to do while carrying on in our everyday task.

As you no doubt know, many counties have already taken steps for civilian defense, forming county organizations which are to perform the same duties as outlined by the State Defense Council.

However, what is not generally known is the fact that the State Defense Council is a legally authorized organization, the result of a law passed by the last state legislature. The reason of this action was obvious—to give the state a unified, simplified plan so that all groups could take the same steps. Thus this plan is the only legally authorized system of organization for civilian defense, and it is so arranged that previously made, locally organized, defense plans can be easily "dovetailed" or adopted into the accepted plan. I feel sure that all counties will take this step, in the interest of harmony and unity.

The state health and housing committee can of necessity work primarily only as an advisory, guiding organization, a clearing house, if you please, for the work of the committees organized in the counties. It is that group which I want to explain to you.

The county defense committee will have three very important functions: emergency medical and hospital service, sanitation, and housing. Those three items will be its responsibility, and with only a moment's reflection, you can realize that the committee has a job which will be a big one.

I am going to try to "break down" the functions of the committee for you, so that you may have a better idea of just how the plan will work.

Each county defense committee, which is charged with many responsibilities other than those of health and housing, will have what is to be known as a county report center. Here is how that will operate.

Plans have been worked out whereby in case of air raids, or other emergency action, interceptor stations will flash a warning to seven district offices, which are the radio transmittors of the state highway patrol. The highway patrol will notify the county report center that danger is imminent. It is agreed that the county sheriff's office will be the report center for each county.

In other words, the report center will be the county clearing post, whether the emergency is within the county, and help is needed, or whether the danger is expected somewhere else.

The person on duty at the report center will call the county air raid warden, who will then call in for action the emergency medical officer, the county fire chief, senior air raid wardens, the sheriff or head of the police protection committee, and messenger and rescue squads.

These people will immediately assemble at the report office and stand by until the emergency is over, or in case the disaster has already happened, they will direct the various units to the scene of action. Thus in a very short time all committees should be functioning in a coordinated manner in accomplishing the purposes for which they were organized.

The county chairman of the health and housing committee will have three particular groups working under his general direction: the emergency medical and hospital service, sanitation, and housing. In addition, his group will work with other emergency agencies, such as fire and police, and voluntary agencies such as the Red Cross, health and nursing organizations.

You are of course most interested in the work of emergency medical and hospital service.

Here is the organization plan for that group. There will be a local chief of emergency medical and hospital service. He must be a physician of broad experience and administrative capacity. He should be responsible to the county defense committee. It should be his duty to survey immediately the medical resources and hospital facilities of the community, and to prepare local plans, develop organization and provide for training of personnel. Happily, some of the counties have already classified members of the medical profession. Those

counties are just that much farther along on the road to preparation.

The chief of emergency medical and hospital service should be chairman of a medical advisory committee. Suggested membership for the committee might include the local health officer, hospital administrators, a physician recommended by the county medical society, a registered nurse, and representatives of the Red Cross and other agencies.

The plan calls for the chief of emergency medical and hospital service to organize or have organized what are to be known as emergency medical and hospital field units. To do this, general hospitals, both voluntary and governmental, should organize and assemble basic equipment. A field unit should consist of two or more squads under the direction of a physician. Squad leaders should be named, and be thoroughly trained in first aid.

Based on a 200 bed hospital and 25,000 population, it is recommended that the emergency field unit consist of two squads, one for each 12 hour shift. Each squad sould consist of two physicians, two or more nurses and two or more orderlies, and it should be capable of functioning, if necessary, as two separate teams. In areas where there are no hospitals, churches, schools and public buildings may be designated as headquarters.

Transportation is another problem for this group. A hospital ambulance, small truck, station wagon or even a passenger car will be adequate to transport personnel of a squad, and on return trips to transport casualties. Recruited private vehicles may be assigned to a hospital or parking center under control of a transport officer, who will work under direction of the chief of emergency medical and hospital service.

A working supply of medical and surgical equipment for use in the field should be available for each physician in portable case or bag with generous packs or drums of extra supplies.

Casualty stations and first aid posts are to be set up near the scene of trouble. The work of these two stations is to be limited to emergency first aid procedure and the preservation of morale. The seriously injured will be evacuated rapidly to a hospital. Those with minor injuries will go to their homes or temporary shelter.

The emergency field unit rescue squads and stretcher teams will have the task of getting casualties to the nearest station. Each squad should have a trained leader, using volunteer rescue workers. There, in briefest form is the general outline of the work in emergency medical and hospital service. The plan will work in this fashion:

A first aid post will be set up near the field of emergency. Victims can be taken by ambulance service direct from the first aid station to evacuation or clearance hospitals, or they can be routed to the casualty station, then by ambulance to the hospital. Backing up this organization will be the base hospital, which is the well established, operating hospital. A transport officer is in charge of arrangements for moving casualties—and the chief of emergency medical and hospital service will be in general direction.

Now let us consider the duties of the local chief of emergency medical and hospital services—just how will he go about getting the work I have outlined actually performed?

You remember I mentioned previously that he must be an outstanding medical leader and should be carefully selected after conferring with the state defense council, the local medical society and others in a position to know. He should be assisted by a medical advisory council. The physician in each county who has the job of emergency medical and hospital service chief has one of the most responsible, most difficult tasks of any civilian in our program for protecting the lives of our citizens.

Here, in brief form, is the outline of duties for the chief of medical and hospital services:

1—He should determine the scope of the activities of all official and voluntary organizations which are to participate in the emergency medical program, to integrate these organizations into the comprehensive local program. In other words, find out what his county has to suit the needs.

2—He should assist hospitals in the locality to organize, equip and train field units. In other words, get his field force in shape to work.

3—He must inspect and select sites for the establishment of casualty stations.

4—He should make a spot map of the locality, indicating the locations of hospitals, appropriate sites for casualty stations, depots for storage of stretchers, blankets and collapsible cots, and the locations of rescue squads. The map should indicate the number of emergency medical and hospital squads in each hospital. This information should be given to the control center and other groups working in the defense group.

5—He should work out a plan for transportation with local governmental departments, so that medical personnel may be able to get to the scene of trouble.

6—Field drills for the rescue squads should be held as a training project.

7—He should make an inventory of hospital beds in the locality and of the possibilities for emergency expansion in bed capacity.

8—This physician should assist in the preparation of plans for evacuation; he should assist in establishing courses for volunteers in the recruiting of volunteers for nurses' aid courses of the American Red Cross.

9—One of his duties is to stimulate and guide extension of first aid training courses as widely as possible among the local population.

10—He should stimulate and guide industrial plants, business establishments and governmental bureaus in the locality in the training and organization of effective first aid detachments among the employees.

You get the idea from these duties that he should be a leader in all activities to awaken his community to the dangers ahead, and help them become better prepared.

I don't intend to discuss the work of the sanitation and housing divisions of the county defense committee, except for these brief, general statements. The supervisor of sanitation will be responsible for increased protection over the water and food supplies; and more attention to garbage, sewage and incineration. He will have the duty of providing alternate workers to take over the duties of those in charge of operations, so that this important work can go on in case of accident. This group will have charge of plans to protect water and food supplies against sabotage. Naturally its work will begin with the regularly employed people, and will be merely a civilian effort to assist them.

The director of housing will have duties of providing shelter, supervising construction of bomb proofing, protecting railroads and airports, streets and highways, power and utility plants.

You are more concerned with the medical aspects of our civilian defense effort.

Once again the medical profession is challenged to perform a difficult, important task. I hope you realize from my remarks that the position of chief of the emergency medical and hospital service is a tremendous responsibility.

I hope further that you realize that it is not a one man job, this business of providing adequate medical care for emergencies. Every physician in the county will have something to do. The chief can actually do little himself, because of his administrative duties. Everyday, practicing physicians must face the emergency and work to overcome it. We hope that the plan outlined here will enable the work to be done efficiently, quickly and thoroughly. I feel sure that the county plan will be put quickly into operation, and that the medical societies stand ready to take their places.

And now, in closing, just a word about the value of

such a plan. Up until last Sunday, it was hard to visualize the need for such an organization. Being traditional lovers of peace, we had heard often that America could not be—would not be attacked. We know today that those statements were but the wishful thinking of those who did not understand modern warfare.

If our west coast and east coast can be menaced—so can our great interior regions—our state of Oklahoma.

We must assume this condition—we must realize that Oklahoma can need the services of just such an organization as I have outlined for you this morning. Realizing this—we must be ready.

"WHAT CAN I DO?"*

MAJOR LOUIS H. RITZHAUPT
State Medical Officer

*Read before the Second Annual Secretaries Conference, Oklahoma State Medical Association, December 14, 1941, in Oklahoma City.

Since the closing days of the last World War, through the few carefree years of plenty, the people of our nation developed false security which was finally terminated with the economic crisis of 1929. The following ten years brought the people a type of living to which they were not accustomed. There was a radical change in the economic, social, moral and physical mode of living which produced a constant state of fear and apprehension; and the mighty sequence of world events were converging upon this crowded climax of human history in which we live.

Wars, and rumors of wars caused a complete transformation of the entire international situation. Governments were overthrown, solemn treaties violated, vast territories occupied by invading armies; great cities destroyed, and multitudes driven into exile or placed in bondage. The liberty of the entire universe was never in greater peril. The very earth shook with these constant upheavals, and the American people stood wondering what fresh surprises were to come in the days ahead. Then on Sunday afternoon, December 7, the great radio stations electrified the nation with the word that a cunning foe, under cover of an offer of Peace had attacked a United States' possession; evidently the storms from abroad were directly challenging our institutions. The period of uncertainty, disunion and apprehension was terminated. War was declared against us, and we in turn, through our constitutional government, declared war against our enemies. The voices of the patriotic and unselfish American people rose in one grand chorus, asking *"What Can I Do?"*

This is the question that is uppermost in the minds of the medical profession of our State and our Nation Those who are educated in the science of medicine have been the guardians of civilization, even greater than the armies or the statesmen of the years which have passed or the years which are to follow. In this crisis, it is well that we maintain our consistency of thought and ability to act as if we were meeting the crisis at the bedside of a patient. We have been taught to function during emergencies.

Our plan of organization cannot be created to advance ourselves individually. It must be planned through the government, through the American Medical Association, through the Oklahoma State Medical Association and its various county branches, so that we may protect and administer to those who remain at home and to those who are fighting for our soil and democratic way of life.

It is well that this crisis did not come upon us without previous schooling. The necessity of selecting, training and equipping the Army of the United States became more important by the Declaration of War. Every member of the medical profession who has been called upon, has given freely of his time and energy in examining the young men of this state registered under the Selective Training and Service Act of 1940. The rigidity and exactness which have been required in selecting those in the armed forces of the United States is recognized by us all. Sometimes we have felt that the Army Induction Station and its examining physicians have been too rigid in their requirements, but we do know that all those young men who have been selected are mentally and physically qualified to lead an army against our foes. This fact should give to our people a feeling of confidence and security. Our work has just begun.

The outstanding tasks that our profession must accomplish are:

1. To aid in the selection of the armed forces.
2. To rehabilitate those with correctable physical defects so they may be qualified for general military duty.
3. To provide medical and surgical care for the armed forces, supervising the sanitation and preventive medicine, evacuation of the sick and injured and the professional care and treatment of the soldiers after evacuation.
4. To see that the civilian population has adequate and sufficient medical and surgical assistance.
5. To aid in the rehabilitation of those who may be injured at the battlefront.

After January 1, 1942, the examining physicians for the various local boards will be required to make a cursory inspection of all registrants in Class I. It will not be necessary to make a detailed examination or any laboratory tests. It is estimated that this procedure will eliminate not more than ten percent. The remaining 90 percent will be sent to the Army Examining Station where a complete and detailed physical examination will be made. The Medical Advisory Boards will be required to function in connection with the Army Examining Station, no case will be referred to them by the local board. If the demand for the army personnel should be more acute, the entire task of selecting the army may revert back to the local board examining physicians, requiring them to make the final examination. I state this now so that you will not be unprepared if you should again be required to take up the tedious task which you so faithfully performed the past year.

The President of the United States, in his recent proclamation, ordered National Headquarters, Selective Service System, to formulate rules and regulations by which registrants who have been certified by the Army Examining Board to have a physical defect that is remediable, are referred to the local board. At this time it is contemplated that the registrant, the local board, and the physician and dentist whom the registrant may select, will confer together, in order that the proper correction can be made. The doctors, dentists and hospitals in the registrant's own community will be used. The expense will be borne by the government, but I have no information as to the basic fees. I wish to encourage and urge doctors to accept the government compensation and not offer their services without any financial remuneration. Permit me to suggest that it would be far better to buy Defense Bonds than to donate your services.

The Office of Civilian Defense, through the State Defense Committee and its Sub-Committee on Health and Housing, with Dr. G. F. Mathews as Chairman, has laid plans for organizing the medical and hospital facilities, the creation of sanitary and housing units and other agencies which are essential to the protection of the civil and industrial population. The last Legislature authorized the Governor to organize a Woman's Home Guard, which under the law, can only be a medical unit, and should be able to function in cases of catastrophies or emergencies, when organized. Those physicians who have restricted their practice to some specialty may be required to devote more time to the practice of general medicine and return to the "country doctor's" style of attending patients.

Who will be medical officer in the United States Army? The Surgeon General has frequently made the statement that the medical personnel is now inadequate. All but 12 of the doctors of this state have completed the per-

sonnel questionnaire that was sent out by the American Medical Association.

Under the direction of the President of the United States, the Office for Emergency Management has set up three distinct agencies, charged with the mobilization of our natural resources. They are:

1. The Health and Medical Committee of the Office of Defense, Health and Welfare Services. This Committee is composed of Dr. Abell, of Louisville, Ky., the Surgeon General of the United States Army, the United States Navy, the United States Public Health Service, and Dr. Richards, of Pennsylvania.
2. The Office of Scientific Research and Development, which is conducting a program of medical research.
3. The Procurement and Assignment Service, which is a central agency set up the purpose of procuring and assigning medical, dental and veterinary personnel to the armed services, with a view of maintaining adequate professional care for the industrial and civil population of this country. President Roosevelt named Dr. Frank H. Lahey, of Boston, as Chairman of the Directing Board. Dr. Sam F. Seeley, Major of the Medical Corps out of the office of the Surgeon General, was named as Executive Officer to the Directing Board. The personnel questionnaire submitted by the American Medical Association to the doctors of the United States has been made available to the Procurement and Assignment Service, and all agencies of the Government which utilize the service of the physicians, dentists and veterinarians, will make requisition upon the Procurement and Assignment Service for personnel. Out of the first 159,000 questionnaires returned to the American Medical Association, 60 percent of the doctors designated their willingness to serve in the armed forces. All of these are not physically qualified for active duty.

The question may arise in the minds of some of us as to which is our greatest obligation—administering to the civilian population, or selecting and caring for the armed forces? They are both of equal importance. And fortunately the cycle of life has divided us into three groups—the young, the middle-aged, and the old. This classification is not necessarily by years, but may be according to ability and accomplishments, activity and physical status, and above all, our feeling of patriotism and sacrifice.

During the past decade the physicians of this State and Nation, as a whole, have seen economical reverses. We have felt the threat of socialized medicine which would subjugate the scientific mind to political influences. The government has prosecuted some of those who tried to thwart organizers of unions and groups who would deprive a citizen of selecting his own physician. This, yes more than this, in a twinkle of an eye, must be, and is forgotten. Before we can conclude the task that lies before us, individually, we must forget the thought of financial gain or advancement. As a profession, collectively we must see that the selfish individual does not profit. There is a bronze image in the rotunda of the Capitol Building at Washington, erected by the State of Georgia to the memory of Crawford W. Long, M.D., the discoverer of ether in 1842. Upon the base of the statue are inscribed these words:

"My profession is to me a ministry from God."

In this hour of crisis we should recognize the truth of this statement. Every physician who is divinely blessed and whose knowledge is enhanced by scientific training will respond to the call of his country, accepting that task which he best can perform or to which he is assigned. We must carry on and do with all our might and mind that which our hands find to do.

MEDICAL CHANGES IN BRITAIN*

*Reprinted from the December 13 issue of the American Medical Association Journal.

Bombing and overcrowded insanitary shelters led the British to anticipate epidemics, says Ritchie Calder in John O'London's Weekly (April 25, 1941). But when a body of American experts under Prof. J. E. Gordon of Harvard arrived they found that the expected epidemic had failed to materialize.

In fact, the shelters had a lower disease rate than the average for the country. And the country as a whole, apart from the war epidemic of "spotted fever," or cerebrospinal menigitis, due mainly to the bringing together of young people under dormitory conditions, in the army and other ways, could show a bill of health comparable with the good years immediately before the war.

Although the war has not yet brought epidemics, it has created problems in the organization of medical services. There have been many proposals for changes in the panel system, which this writer says "no one would dare to pretend . . . has been satisfactory." It is generally agreed that the "approved society" system is wasteful. The British Medical Association has proposed the panel system to dependents, but the first effect of this would be to make nearly double the sales value of existing practices, which would compel physicians to pay some $10,000 to start in practice.

The voluntary hospital system has been heading for bankruptcy for several years—a fate which increased gifts and hospitalization insurance have only postponed.

As a result of the war, some of these hospitals began, for the first time in history, to bank money. They were paid by the state to keep the beds empty for casualties. The government leased these beds at anything from two and a half guineas to seven guineas a week (about $8 to $25). The hospitals were then able to lease emergency hospitals, built by the state, with the help of the bed rent from the state. This paradoxical device maintained the facade of the voluntary system. And since the war began, hospitals have been among the main targets of the Nazi air raiders, and an essential part of the postwar replanning will have to deal with their rebuilding.

Private practice has been hard hit. Large numbers of doctors have been recruited for the forces and others taken into the government's hospital scheme. Expansion of industrial practice and special shelter service have taken others, and evacuations and the creation of "defense areas" have caused widespread dislocations. It has also brought some steps toward reorganization and numerous proposals for reconstruction after the war. A "regional plan" for hospitals to include both voluntary and government operated hospitals has been developed, and there seems to be a trend toward state medicine with salaried physicians as part of an integrated system.

Manifestly the old order in medicine is finished.

One thing is certain: We shall have the right to demand after this not the sickness service, which is all we have got at the moment, but a health service, embracing the whole population, irrespective of income, and providing medical care from birth to death, not as a purchasable commodity, but as an inalienable right. That service would conceive health as a biological trinity—protective medicine, which includes nutrition and environment (positive health); preventive medicine, which is the public health services, our pickets against disease; and curative medicine, including early diagnosis and highly skilled treatment, with all the resources of modern medical science and practice.

Flying Service Offers Ambulance Plane

Worthy of the attention of all members of the Association is the Pavey Flying Service in Tulsa, which furnishes to physicians a completely equipped ambulance plane for transporting patients.

The Pavey Service is one of three such services available in the Southwest, the other two being located in Wichita, Kan., and Lubbock, Tex.

Survey Made of Physicians In Active Service

A recent survey taken by the Indiana State Medical Association concerning the percentage of doctors in the states who have been called into military service was made, and an incomplete analysis of this survey is shown in the accompanying table.

Since the figures were given on the survey by the Association, 18 more Oklahoma physicians have been called to duty and on the basis of this figure, Oklahoma percentage now stands as of December 15 at approximately seven percent. This figure is based on an approximate 2,000 doctors in the state of Oklahoma and not on the membership of the Association.

PERCENTAGE OF PHYSICIANS IN ACTIVE SERVICE

STATE	Number of Physicians in State	Percentage of Total
Alabama	67	4.25%
Arizona	Not over 20—membership 360	
Arkansas	Around 75	4%
California	285 (These figures apply only to members of Cal. Medical Association).	4.2%
Colorado	73	About 5%
Connecticut	125	5%
District of Columbia	66	5%
Georgia	Not available	Do not know
Idaho	21	5%
Illinois	Exact number not available	
Indiana	Around 300	7.3%
Iowa	129	5%
Kansas	104	.052%
Kentucky	104—about 2,200 physicians	
Louisiana	in state	
Maryland	173	8¾%
Michigan	No information	
Mississippi	113	1.7%
Missouri	61 of 1,302 white physicians	4.68%
Montana	50 negro phys., none inducted	
Nebraska	No definite information	
New Hampshire	No definite information	
New Jersey	116	8%
New Mexico	30	4.5%
Ohio	347	5.59%
Oklahoma	87†	3.1%††
Pennsylvania	Approximately 550	Approximately 5.9%
Rhode Island	122	6½%
South Carolina	Approximately 650	.06%
Tennessee	36	3.7%
Texas	95	8.9%
Utah	176	.074%
Vermont	No definite information	
Virginia	26	5%
Washington	Approximately 50	Membership 400
West Virginia	225 to 250	
Wisconsin	76	19%
Wyoming	74	5.28%
	About 120	3%
	Approximately 30	

Novel Use of Sponge Rubber

Another novel use of sponge rubber as a medium to absorb vibration is reported by The B. F. Goodrich company, Akron, Ohio. One of the leading nose and throat specialists of the company has a laboratory located 20 feet from railroad tracks, where the accurate photographing of bacteriological specimens was impossible because of the vibration.

The problem was solved by the construction of piers sunk into the ground, supporting the camera with a magnifying ratio of 1,000 to one. The sponge rubber, used in conjunction with cork and concrete in the construction of the piers eliminated the vibration.

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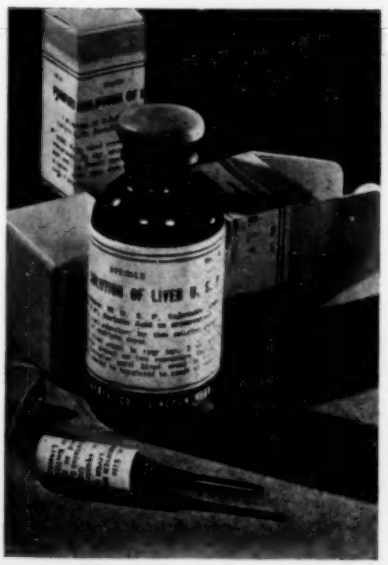

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ASSOCIATION ACTIVITIES

Postgraduate Committee Ends Pediatric Course

Physicians throughout the state will be interested to know that the pediatric course in Oklahoma, by Dr. James G. Hughes, closed the first week in January. Dr. Hughes has completed two years of teaching in the state. Everyone knows by this time that the course was well received and Dr. Hughes has been warmly complimented by physicians everywhere by reason of his practical instruction. Likewise, his consultations among the physicians have been much appreciated.

The following teaching centers were used. The number opposite each center indicates the enrollments: (Circuit No. 1 was given by Drs. Rupe, Danis, and Harrison of St. Louis.)

Circuit I	No.
Tulsa	50
Bartlesville	23
Miami	22
Vinita	13
Claremore	10
Tulsa (Col.)	8
Total	126

Circuit II	No.
Ada	27
Durant	18
Sulphur	12
Idabel	11
Hugo	10
Total	78

Circuit III	No.
McAlester	20
Muskogee	19
Okmulgee	17
Poteau	13
Tahlequah	11
Total	80

Circuit IV	No.
Cushing-Stillwater	23
Sapulpa-Bristow	15
Ponca-Blackwell-Tonkawa	19
Pawhuska	14
Pawnee	12
Total	83

Circuit V	No.
Okla. City	59
Shawnee	23
Norman	16
Wewoka	16
Pauls Valley	12
Total	126

Circuit VI	No.
Chickasha	20
Lawton	20
Duncan	18
Ardmore	14
Frederick	10
Total	82

Circuit VII	No.
Enid	33
Woodward	20
Guymon	11
Alva	9
Fairview	6
Total	79

Circuit VIII	No.
Clinton	23
El Reno	20
Guthrie	13
Watonga	9
Okla. City (Col.)	9
Total	74

Circuit IX	No.
Anadarko	15
Elk City	14
Hollis	6
Altus	11
Hobart	8
Total	54

Total number of enrollments	782
Total number of consultations	979
Total number of lay lectures	50

Many will be interested to know that Dr. Hughes is being called immediately into Military Service, and further that the Army authorities were liberal minded in assisting the State Medical Association to keep alive this postgraduate program by permitting Dr. Hughes to remain with the program until he had finished instruction within the state. The Postgraduate Committee and the State Medical Association, therefore, wish to express publicly their appreciation to the 8th Corps Area Medical Department and the Surgeon General's office for the deferment given Dr. Hughes in behalf of this program and for permitting its completion.

The Commonwealth Fund of New York has appropriated funds for a two-year program in Internal Medicine, and your Committee is now attempting to complete plans to open this program, which has been requested by so many physicians in the state, and is negotiating with several possible instructors from which one will eventually be chosen.

Our appreciation is again expressed to The Commonwealth Fund of New York, and to the State Health Department and Dr. Grady Mathews, for their financial assistance given to the Association in this program of higher education.

"DOCTORS AT WORK"

"Doctors at Work," the dramatized radio program broadcast by the American Medical Association and the National Broadcasting company, began its second season on the air, December 6, 1941, and was brought to Oklahoma listeners at 4:30 p.m. (Oklahoma time) through the studios of Station WKY, Oklahoma City, and KVOO, Tulsa.

This program, which deals with the experiences of a fictitious but typical young American doctor, will be broadcast regularly every Saturday afternoon at 4:30 p. m., Oklahoma time, over WKY and KVOO as long as Oklahomans demand it.

Last year, "Doctors at Work" portrayed the experiences of Tom Riggs choosing medicine for his vocation and proceeding to acquire the necessary education and hospital training for the private practice of medicine. This year's serial will depict the subsequent life of Dr. Tom Riggs and his wife in time of national emergency in a typical medium sized American city.

Ten Oklahoma Doctors Receive Commonwealth Fellowships

The Commonwealth Fund of New York City has announced the granting of fellowship awards for 1942 to ten Oklahoma doctors.

The names of these doctors and the branch of medicine in which they were awarded their fellowships are as follows:

Dewey Lee Mathews, Tonkawa, Medicine; Addison B. Smith, Stillwater, Surgical Diagnosis; Orville M. Woodson, Poteau, Surgery, Obstetrics and Gynecology; F. Keith Ochlschlager, Yale, Surgery and Medicine; Lee Roy Wilhite, Perkins, Medicine, Obstetrics and Gynecology; Raymond O. Smith, Hominy, Medicine; A. C. Little, Minco, Medicine; and Ernest Rose, Sulphur. Obstetrics and Gynecology.

Southwest Oklahoma Medical Society Meets

Members of the Southwest Oklahoma Medical society met December 15 at the Country club in Hobart for a dinner meeting and scientific program.

Three speakers, Dr. R. M. Slabaugh, Sayre; Dr. Louis H. Ritzhaupt, Oklahoma City, and Dr. Paul H. Dube, Shattuck, were heard on the program. Doctor Slabaugh discussed "Differential Diagnosis of the Anemias;" Doctor Ritzhaupt, "Position of the Medical Profession in National Defense," and Doctor Dube, "Surgical Treatment of Arthritis of the Knee Joint."

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NEWS FROM THE COUNTY SOCIETIES

Most of the county medical societies finished their 1941 meeting year with the election of 1942 officers. Such lists of new officers that were available at the time of this printing are reported on this page.

Dr. R. Q. Goodwin, Oklahoma City, was elected president of the Oklahoma County Medical association, and Dr. Walker Morledge, Oklahoma City, vice-president. Dr. W. E. Eastland, Oklahoma City, was elected secretary-treasurer. Delegates to the 1942 Annual Meeting are Dr. W. F. Keller, Dr. Onis G. Hazel, Doctor Morledge, Dr. L. C. McHenry, Dr. C. R. Rountree, Dr. O. A. Watson, Dr. J. B. Snow, Dr. D. H .O'Donoghue, Dr. C. M. Pounders, Dr. George Garrison and Dr. Allen Gibbs. Alternates chosen include Dr. W. W. Rucks, Jr., Dr. Neil Woodward, Dr. R. H. Akin, Doctor Eastland, Dr. M. R. Jacobs, Dr. R. L. Murdoch, Dr. R. L. Noell, Dr. W. K. West, Dr. Harper Wright, Doctor Goodwin, and Dr. George Kimball.

New president of the Pontotoc county society is Dr. R. E. Cowling, Ada. Dr. M. M. Webster and Dr. E. R. Muntz, both of Ada, were elected vice-president and secretary-treasurer, respectively. Delegates for the society are Dr. E. M. Gullatt, Dr. E. A. Canada, Dr. Ollie McBride and Dr. Sam A. McKeel. Dr. M. L. Lewis and Dr. W. F. Dean were chosen as censors, and Doctor Webster, Doctor Muntz and Dr. R. E. Cowling were appointed to the Scientific Program committee.

Dr. Shade D. Neely, Muskogee, was elected president of the Muskogee county society, at a meeting, December 1, in Muskogee. Other Muskogee county officers were Dr. L. S. McAlister, vice-president; Dr. J. T. McInnis, secretary-treasurer; Dr. M. K. Thompson, censor; Dr. C. E. White and Dr. J. H. White, delegates; and Dr. I. B. Oldham, Jr. and Doctor McAlister, alternates.

Dr. W. M. Browning, Waurika, will head the Jefferson County Medical society as president. Elected to serve with him as secretary and delegate respectively were Dr. J. I. Hollingsworth, Waurika, and Dr. L. L. Wade, Ryan.

1942 President of the Okmulgee County Medical society is Dr. J. G. Edwards of Okmulgee. Other newly elected officers are Dr. Robert L. Alexander, vice-president; Dr. John R. Cotteral, secretary-treasurer; Dr. I. W. Bollinger, delegate, and Dr. J. C. Matheney, alternate.

Dr. Ralph W. Rucker, Bartlesville, was elected president of the Washington-Nowata county society, December 10, at the regular meeting of the society. Dr. R. K. Davis, Nowata, will serve as vice-president; Dr. J. V. Athey was re-elected as secretary-treasurer; and Dr. R. C. Gentry was chosen as censor. Dr. R. L. Kurtz was re-elected trustee for the society.

Delegates are Dr. S. A. Lang, Dr. L. D. Hudson and Dr. H. C. Weber, and alternates are Doctor Davis, Dr. E. E. Beachwood and Dr. J. P. VanSant.

Dr. D. S. Harris of Drummond was elected president of the Garfield county society, and Dr. John R. Walker, Enid, was re-elected to serve as secretary for the fifteenth consecutive year. Other officers elected are Dr. Bruce R. Hinson, Enid, vice-president; Dr. V. R. Hamble and Dr. W. P. Neilson, both of Enid, delegates; and Dr. Wendell J. Mercer, Dr. Evans E. Talley and Doctor Hinson, censors.

Dr. J. B. Clark, Coalgate, and Dr. J. S. Fulton, Atoka, were re-elected as president and secretary-treasurer, respectively, of the Atoka-Coal County Medical society, with Dr. J. C. Canada, Atoka, serving with them as vice-president. Other officers include Doctor Clark and Doctor Canada as delegates; Dr. W .W. Cotton, Atoka, and Dr. R. C. Henry, Coalgate, as alternates; and Dr. R. D. Cody, Centrahoma, Doctor Cotton, and Doctor Henry as censors.

New president of the Pittsburg County Medical society is Dr. Austin R. Stough, McAlester. Serving with him during 1942 will be Dr. Will C. Wait, McAlester, vice-president, and Dr. Edward D. Greenberger, McAlester, re-elected as secretary-treasurer of the society.

Delegates are Dr. T. H. McCarley and Dr. L. S. Willour, both of McAlester, and their alternates include Doctor Wait and Dr. Frank Baum, McAlester. Doctor Greenberger, Doctor Baum, and Dr. R. K. Pemberton, McAlester, will serve as censors, and Doctor Willour, Doctor Greenberger and Dr. Floyd Bartheld, McAlester, will serve on the Scientific Program committee.

Dr. J. M. Allgood of Altus will preside over the Jackson county society in 1942, and Dr. C. G. Spears, Altus, will serve the society as vice-president. Re-elected as secretary-treasurer was Dr. Willard D. Holt of Altus.

Dr. E. S. Crow, Olustee, was chosen as delegate, with Dr. E. W. Mabry, Altus, as alternate. Censors are Dr. J. R. Reid, Doctor Spears and Doctor Mabry, all of Altus.

Re-elected as president of the Noble county society was Dr. J. W. Francis of Perry. Also re-elected as secretary-treasurer was Dr. C. H. Cooke, Perry. Delegates include Dr. A. M. Evans, Perry, and Doctor Cooke, and Dr. T. F. Renfro, Billings, was chosen as alternate.

Dr. John Carson, Shawnee, was elected president of the Pottawatomie county society; Dr. Paul Gallaher, Shawnee, was elected vice-president, and Dr .Clinton Gallaher, Shawnee, was re-elected secretary-treasurer. Delegates are Dr. G. S. Baxter and Dr. W. M. Gallaher, both of Shawnee, and alternates are Dr. E. E. Rice and Dr. R. M. Anderson, both of Shawnee. Dr. M. A. Baker and Dr. A. C. McFarling, both of Shawnee, and Dr. R. C. Kayler, McLoud, are censors, and Doctor Carson, Dr. Paul Gallaher and Dr. Clinton Gallaher will serve on the Scientific Program committee.

At the December 20 meeting of the society, it was planned to have the Annual Meeting and Ladies Night January 17 in the Aldridge hotel, Shawnee. Dr. G. S. Baxter was appointed Chief of the Emergency Medical and Hospital services on the County Civilian Defense committee, and the society directed its president to appoint a Medical Protective committee to act in the interest of all physicians in Shawnee who may be dislocated from their practices in the interest of national defense.

It was also voted to reduce dues of out-of-town members to a total of twelve dollars a year, with two dollars going to the county society and ten dollars to the Association. It was also voted that the regular monthly Bulletin be made the official organ of the society, and that the regular weekly radio programs under the direction of Dr. R. M. Anderson be continued.

The Woods County Medical society has elected Dr. W. F. LaFon, Waynoka, as its 1942 president and Dr. C. A. Traverse, Alva, as vice-president. Dr. O. E. Temp-

lin, Alva, was re-elected secretary-treasurer, and Dr. D. B. Ensor of Hopeton was elected to serve for three years as censor and delegate. His alternate is Dr. I. F. Stephenson, Alva.

Dr. J. B. Hampton, Commerce, was elected president of the Ottawa county society, and Dr. M. M. DeArman, Miami, was elected vice-president of the Middle district; Dr. J. R. Barry, Picher, vice-president of the Northern district, and Dr. J. H. L. Staples, Afton, vice-president of the Southern district. Secretary-treasurer is Dr. Walter Sanger of Picher, and censors are Dr. M. A. Connell, Picher, and Dr. W. J. Craig and Dr. W. G. Chesnut, both of Miami. Delegates to the Annual meeting and their alternates will be appointed at the February meeting of the society.

At the December 17 meeting of the Garvin County Medical society, Dr. T. F. Gross, Lindsay, was elected president, Dr. A. H. Shi, Stratford, vice-president, and Dr. John R. Callaway, Pauls Valley, was re-elected secretary-treasurer. Dr. G. L. Johnson, Pauls Valley, was chosen as delegate, and Dr. Mort n E. Robberson, Wynnewood, as censor for 1942-43.

Dr. J. H. Plunkett, Wagoner, was elected 1942 president of the Wagoner county society, with Dr. S. R. Bates, Wagoner, serving as vice-president and Dr. H. K. Riddle, Coweta, as secretary-treasurer. Doctor Riddle will serve also as delegate to the Annual meeting, and Doctor Plunkett as his alternate.

University of Oklahoma School of Medicine

Dr. Lewis L. Reese, Medical Director of the State University and Crippled Children's hospitals resigned on November 20, 1941, and Dr. George N. Barry was appointed Acting Medical Director.

On the afternoon of December 4, the School of Medicine was closed as a tribute to Dr. R. C. Lowry, professor of clinical obstetrics, who died suddenly on December 2, 1941. The faculty and student body lost a sincere and true friend and an excellent teacher.

General Robert U. Patterson, Dean of the School of Medicine, was guest speaker at the meeting of Alpha Epsilon Delta, premedical fraternity at the University of Oklahoma, on November 19. His subject was "The Army and its Relation to Medicine."

Dr. H. A. Shoemaker, Assistant Dean, spoke to members of the Physiology Club of the University of Oklahoma on November 25. His topic was "Physiology of Anesthesia."

The following members of the Faculty were on the program of the meeting of the Oklahoma Academy of Science at Edmond, Oklahoma, December 5 and 6: Dr. Donald B. McMullen, Dr. H. D. Moor, Dr. Paul W. Smith, Dr. Irwin C. Winter, Dr. Arthur A. Hellbaum, Dr. H. A. Shoemaker, Mr. Clark Ice, Dr. Carl A. Bunde, Dr. M. R. Everett, Dr. Irvin S. Danielson, and Miss Fay Sheppard.

Dr. Henry G. Bennett, Jr., recently appointed assistant in Gynecology on the faculty of the medical school, has been called to active duty with the United States Army.

Several members of the Faculty will attend the meeting of the A. A. A. S. at Dallas, Texas, December 29 to January 3.

The annual Christmas party of the School of Medicine was held at 8:00 P. M., December 18, 1941.

A total of 74 junior and senior students have applied for commissions in the Army or the Navy; 59 as 2nd Lieutenants in the Medical Administrative Corps of the Army of the United States, and 15 as Ensigns H. V. (P.) in the Naval Reserve. There are a total of 58 men and two women in the junior class, and 52 men and three women in the senior class.

Pause at the familiar red cooler for ice-cold Coca-Cola. Its life, sparkle and delicious taste will give you the real meaning of *refreshment.*

News From The State Health Department

Well developed methods of tuberculosis case finding are outlined in the report of a study made by the subcommittee on case finding procedures in tuberculosis of the American Public Health association, and now used by the Oklahoma State Health department.

The committee members were named because of recognized authority in this field and were given a free hand to determine the best case finding methods as an aid to physicians and health departments throughout the nation. Conclusions of the committee were accepted as the belief of experts in this phase of work. Among those on the committee were Bruce H. Douglas, M.D., tuberculosis controller, Detroit Department of Health; Esmond R. Long, M.D., director, Henry Phipps Institute, Philadelphia and Robert E. Plunkett, M.D., general superintendent, tuberculosis hospitals, New York State Department of Health.

Contrary to common understanding, the report terms the age period between five and 15 years as latent in the pathogenesis of tuberculosis. The most productive and important work to be done in tuberculosis control is among those 15 years of age and over, whether they be considered as contacts to known cases or on the basis of mass surveys, the report states.

Experience indicates that the incidence of significant pulmonary tuberculosis will be about one in 3,400 grade school children examined, whereas the ratio in high school students is about one in 700.

"There is a definite trend today away from mass surveys of grade school populations and a greater emphasis on high schools and colleges," the report says. In the past the emphasis has been on finding tuberculosis in youngsters so as to give early treatment, but the committee report, based on wide experience, maintains that the incidence is too low to justify the cost of widespread searching.

The report also defends the value of the tuberculin test, stating that "experience indicates that the overwhelming majority of patients with active tuberculosis of the reinfection type react positively to tuberculin." The study continues, "It is our opinion that the tuberculin test is an instrument of high efficiency in detecting active reinfection tuberculosis and that only an occasional case of tuberculosis of the type will be missed by the test."

The report deals primarily with large scale efforts to find tuberculosis cases, such as those undertaken by the state tuberculosis association and the state health department. "The selection of a suitable population for mass surveys is of utmost importance. From data now available it is possible to draw certain broad generalizations as to the basis for selecting the group to be surveyed. Primarily it will be an adult population above 20 years of age," the report states.

"The peak of tuberculosis mortality for women has been at the age period 25 to 29; for men the peak has been pushed along from the age period 35 to 39 in 1900 to the age period 65 to 69 in 1937," according to the report.

Diagnostic facilities listed in order of importance for the examination of adult groups are: x-ray; examination of sputum; case history; physicial examination and tuberculin test.

The health department recognizes the value of an x-ray for everyone as the best means of diagnosis for tuberculosis, whether an adult or a grade school child, and recommends this procedure where it is possible on an individual basis.

"Operating as we are, with limited funds and personnel, the state health department finds it wise to give more attention to young adults in our case finding efforts, and concentrate less on those under 15 years of age, as studies of the best authorities have proved that the young age group is far less likely to have the disease than are older people. This same procedure might well be followed by the private physician in his search for tuberculosis," Dr. G. F. Mathews, commissioner, commented.

The study also contains a detailed section on case finding methods as they apply to the practicing physician. Copies of the study may be obtained from the tuberculosis association for a nominal sum.

Four staff members of the state health department are now in school, taking nine month courses which will give them their degrees in public health.

They are Dr. John Y. Battenfield, Dr. M. L. Peter, Harold Malone and Bill Lanphere. Doctor Battenfield, epidemiologist stationed in the central office, is in Johns Hopkins university's School of Public Health, while his duties are being assumed by other members of the staff. Doctor Peter, director of the Payne County Health department, Stillwater, is also at Johns Hopkins. Dr. Perry Hewitt is in charge of the Stillwater department.

Mr. Malone, engineer in the field advisory unit stationed at Oklahoma City, is in the University of Michigan School of Public Health. His duties are being handled by G. T. McNew, engineer formerly stationed at Woodward. Lanphere, sanitarian in the Carter County Health department, Ardmore, is also at Michigan, and has been succeeded by Spencer Barnhill, formerly of Tulsa.

The newest division of the state health department, industrial hygiene, is now hard at work in a field which has assumed unusual importance because of the national emergency.

Studies of working conditions have been made in over 40 plants in Oklahoma which are at work on defense contracts. In some instances recommendations made as a result of the studies have led to the removal of working conditions which were hazardous to the health of the workers.

Particular attention is being given to dust, gas, vapors and mists and similar conditions in work areas which might be considered dangerous.

The division has also completed a detailed study of the working conditions in typical mines of the tri-state lead and zinc mining region of Miami. A comprehensive report, including recommendations has just been completed and turned over to the industry. E. C. Warkentin and Bob Ady, engineers, do the work of this division.

Full time, local health service continues to develop in Oklahoma, with 40 counties now having the benefit of trained public health workers on duty.

Newest counties to provide a well planned public health program of disease prevention are Okmulgee, Stephens and Jefferson, making an all-time high in the development of this work.

Six Washington-Nowata Society Members Have Perfect Attendance Records

A chart of the 1941 attendance record of members of the Washington-Nowata County Medical society has been received in the office of the Association from Dr. J. V. Athey, Secretary of the society.

With a total average attendance of 63 percent for the whole group, the chart shows that six doctors had records of 100 percent attendance, eight had records of 90 percent, three had records of 80 percent, and five had records of 70 percent.

The six members whose attendance was 100 percent were Doctor Athey, Dr. E. E. Beechwood, Dr. Forrest S. Etter, Dr. O. I. Green, Dr. S. M. Parks, and Dr. Thomas Wells.

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ALL those who smoke inhale — at least sometimes. And *when* they inhale, the danger of irritation increases. Therefore, the importance of this Philip Morris advantage:

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Group Hospital Service News

N. D. Helland Is New Executive Director

Mr. N. D. Helland is now Executive Director of GROUP HOSPITAL SERVICE, Oklahoma's approved "Blue Cross Plan" for hospital care. He succeeds Mr. Walter R. McBee, who was "drafted" by the State of Texas in August. Mr. Helland comes here from Milwaukee, Wisconsin, and was selected for Oklahoma after a number of executives from various approved plans had been interviewed by the Board of Trustees. Helland first affiliated with the "Blue Cross Plan" at Minneapolis, later going to Milwaukee with the "Blue Cross Plan." His wife and two children, Nancy, 12, and Dennis, 7, moved with Mr. Helland to Tulsa December 1.

Mr. Helland, widely known throughout the nation's non-profit plans for his sales ability, comes to Oklahoma with an ambitious program for extending this voluntary community service throughout the state. Back of his good intentions is the record of the "Blue Cross Plan" in Milwaukee, where 75,000 members were enrolled in 23 months.

Mr. Helland has stated that it is becoming increasingly difficult to point out big names in American industry which do not participate in the community service plans. The reason is not only because of the benefits derived, but because the "Blue Cross Plans," in fulfilling their functions, do so in such a manner as to preserve the presence of individual freedom and self-help and the existing voluntary hospital system and private practice of medicine—the very foundations on which America has built the finest health standards the world has ever known.

This community service plan will progress in Oklahoma in direct proportion to the interest and cooperation of the Oklahoma State Medical Association. The continued whole hearted support of every member of the Association is earnestly solicited in extending this service. The personnel of your "Blue Cross Plan" is eager to assist you in every way possible to serve the people of your community.

Fifth Neuropsychiatric Institute Planned

Under the sponsorship of the American Psychiatric Association the fifth interstate Neuropsychiatric Institute will be held March 22 to April 4, 1942, at State Hospital No. 2, St. Joseph, Mo.

The Institute, which will be conducted under the Association's sponsorship through its committee on psychiatry and medical education, will present many interesting lectures on neuroanatomy, neuropathology, psychobiology, psychotherapy, neuroroentgenology, neurosurgery, and electro-encephalography, together with a presentation of clinical psychiatric and neurologic problems and related subjects.

Resolution on Postgraduate Course

The Blaine County Medical Society, on this 20th day of November, in regular session assembled in the city of Watonga, Okla., does hereby offer the following resolution:

(1) We approve the two schools of postgraduate work conducted by Drs. Smith and Hughes, respectively. We hereby express our appreciation to the Foundation, the State Medical Association, Dr. Smith and Dr. Hughes and any and all others who have assisted in bringing to us these interesting and instructive courses of study.

(2) The suggestion has been made that another course in "Internal Medicine" would possibly be offered. This meets with our hearty approval and should it be offered we believe that each and every member of the Society will support it and attend the lectures as we have done with the previous courses.

The above resolution is approved by unanimous vote.

W. F. Griffin, M.D., Secretary.

• *OBITUARIES* •

Dr. J. B. Hix
1878-1941

Joseph Bedford Hix was born in Whittleyville, Tenn., December 11, 1878. His old home community was his home until he was grown and had secured his education and prepared to serve his fellow men as a physician.

Doctor Hix received his A.B. degree at Peabody college in Nashville, Tenn., and taught for a number of years in Tennessee, Kentucky and Louisiana before he began his study of medicine. After he had graduated with an M.D. degree from the University of Tennessee, he practiced medicine in Jackson county in that state for six years.

In 1914, Doctor Hix and his wife moved to Oklahoma, where he continued his practice in Tipton until 1917. At that time, they established their home in Altus. In 1922, Doctor Hix began to specialize in skin and x-ray treatment, a specialty which he continued until his death.

He died, following illness from a heart disease, December 13, 1941.

Survivors include his wife of the home address, a brother, W. M. Hix, Redlands, Calif., and several nieces and nephews of Tennessee and California.

Resolution

WHEREAS, Doctor Joseph B. Hix was, for many years, an active and respected member of the Jackson County Medical Society, and,

WHEREAS, during that period of time he was a respected and honored member of the Jackson County Medical Society, co-operating in every way for the good of the Society and his community, giving freely of his time and efforts to promote the betterment of the medical profession and his colleagues, and,

WHEREAS, the said Doctor Joseph B. Hix has departed this life, and the Jackson County Medical Society wishes to commemorate his passing by an appropriate resolution.

NOW, THEREFORE, BE IT RESOLVED BY The Jackson County Medical Society, this 29th day of December, 1941, that the death of Doctor Joseph B. Hix is considered a great loss to this Society and the community in which he lived.

BE IT FURTHER RESOLVED that the Jackson County Medical Society takes this method of expressing to the Medical profession and to Mrs. Hix its regret at the passing of our friend and colleague.

BE IT FURTHER RESOLVED that a copy of this resolution be sent to Mrs. Joseph B. Hix and that a copy also be forwarded to the State Medical Journal for publication.

Raymond H. Fox
Willard D. Holt
E. W. Mabry
Committee on Resolutions

Dr. Jesse Bird 1875-1941

Dr. Jesse Bird, a practicing physician in Oklahoma for 39 years, died December 9 in an Oklahoma City hospital, where he had been admitted after suffering a heart attack.

Doctor Bird was born March 4, 1875, in Gainseville, Tex., and was graduated from the Louisville university school of medicine in 1897. He practiced medicine first in Texas, then in Dougherty, Okla., and finally in Oklahoma City, where he made his home till his death.

Survivors include his wife at the home address, a son, Jesse Dale Bird, Oklahoma City; three daughters, Mrs. Harry Weston, Guernsey, Wyo., Miss Anna Grace Bird, Hydro, and Mrs. Margaret Fulton of the home address; three brothers, Edgar Bird, Arlington, Tex., George Bird, Alvarado, Tex., and Tom Bird, Chickasha; and five grandchildren.

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PERNICIOUS ANEMIA PATIENT

THE STORY OF LIVER and pernicious anemia seems old today, yet less than 15 years have passed since the original announcement of MINOT and MURPHY.

During this period the search for more effective liver therapy has been pursued by many workers. Isolation of the active principle of liver has been their goal.

In 1929 COHN succeeded in preparing the first experimental injectable liver extract. In 1931 Lederle made a significant contribution with the first Council-accepted, commercially available liver extract for intramuscular use. Liver therapy was thus revolutionized! Subsequently, extracts of greater and greater concentration have resulted from Lederle's constant quest for a better understanding of the antianemic substance.

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BOOK REVIEWS

"The chief glory of every people arises from its authors."—Dr. Samuel Johnson.

"PERSONAL AND COMMUNITY HEALTH." C. E. Turner, A.M., Sc.D., D.P.H., Professor of Biology and Public Health, Massachusetts Institute of Technology. Fifth Edition. The C. V. Mosby Company, St. Louis, 1939.

This book is well written and arranged so that the topics appear in a logical sequence. Throughout the book the discussion of hygiene is based on normal physiology. The first part is devoted to personal health, with discussions of the hygiene of the various systems and organs of the body. The second part deals with community health. The material on disease prevention is well organized and the basic principles of immunity are discussed. The chapters on the relationship of water supply, waste disposal, ventilation, maternal and child hygiene, school hygiene and industrial hygiene to the health of the community are well adapted to give the student a clear-cut concept of their importance.

The report (1935) of the American Health Association on the control of communicable disease appears in the appendix. A revised report (1940) has appeared since the publication of this book but the former still serves as an excellent reference and summary of some 62 diseases.

The stated purpose of this book is to place health instruction on a college and university level. The author is well qualified, with his practical and teaching experience, to write such a book. The book is well suited in beginning courses of chemistry and biology. Students interested in physical education, predental or premedical courses would find it of practical value. Used as a background for those who are going to teach hygiene in the public schools this book would be excellent. It would also serve as a text and reference book for nurses—Donald B. McMullen.

"CANCER OF THE FACE AND MOUTH." Diagnosis, Treatment, Surgical Repair, Vilray P. Blair, M.D., Sherwood Moore, M.D. and Louise T. Byars, M.D., St. Louis, Mo. C. V. Mosby Company, St. Louis, 1941.

Vilray P. Blair has often spoken and written his opinions in regard to how cancer of the face should be treated. These opinions have been widely accepted and respected. This volume represents an enormous amount of labor and effort upon his part in gathering together in a systematic manner his ideas and showing the results both good and bad in a group of 1,500 cases. He has been ably assisted by Dr. Sherwood Moore, Professor of Radiology in the Washington University School of Medicine and Director of the Edward Mallinckrodt Institute of Radiology, and Dr. Louis T. Byars of the Plastic Surgery Department of the Washington University School of Medicine.

They show conclusively that if cancer of the face is to be treated successfully there must be close correlation of the pathologist, surgeon and radiologist.

They postulate the following principles which they think should govern the management of any case of malignancy:

1. Early recognition and treatment.
2. Selection of a rational plan of treatment.
3. Adequate execution of the selected plan.
4. Adequate observation and care of the patient before, during, and after treatment.

The work is made especially enlightening by the wealth of good photographs and diagrams.

This volume can be read to an advantage by all classes of practitioners since it is written in clear, concise and straightforward language, laying down definite criteria for diagnosis, treatment and prognosis.—John F. Burton.

"DISEASES OF THE BLOOD," an Atlas of Hematology. Roy R. Kracke, M.D., Professor of Bacteriology and Laboratory Diagnosis, Emory University School of Medicine; formerly Director of the Hematology Registry. Second Edition. Cloth. Price $15.00. 692 pages. 54 colored plates and 45 other illustrations. J. B. Lippincott company, Philadelphia.

Throughout the ages the role of the blood in health and disease has had a prominent place in all discussions and treatises on medicine. One of the first objects to be examined with the compound microscope was the blood. Thus were the corpuscles discovered. From that day to this the study of the blood has had a prominent place in all sciences dealing with life, health, and disease. One after another, characteristic changes in the blood have been recognized as part if not the most important manifestation of this or that disease, so there came to be listed certain blood diseases, as anemias and leukemias, as well as blood changes concomitant with other pathologies such as infections and parasitic infestations. In determining these changes a great many technical procedures have been developed. And with the realization of the importance of laboratory procedures as an aid to clinical examination in diagnosis and guide in treatment, a specialty of medicine, clinical pathology, has developed to a high degree and is an essential part of any clinical setup. Most frequent of all laboratory procedures is examination of the blood, and a knowledge of the normal and pathological blood or hematology requires perhaps the widest as well as the most detailed study and a knowledge of variety of exacting techniques of any laboratory procedures except tissue pathology.

Unfortunately, due to a somewhat meager knowledge of biological principles and variations of these in complex organisms, and also different points of view or insufficient study of embryology, cytogenesis, and tissue differentiation there has been developed an argument as to the origin, relation, and propagation of the various blood elements. A veritable library has grown up on the facts of hematology interpreted on the basis of the views of this or that "school" of hemocytologists.

Dr. Kracke's book is a decided contribution to the library of hematology. His book is not written on the assumption that the reader has an advanced knowledge of the subject, which is a defect of some very excellent books. Dr. Kracke begins with the fundamentals, even with definitions of terms. He present the gist of the theories of the various "schools" of hematogenic thought. His book is valuable to the student of hematology because of his discussion of fundamentals of hematology. It is valuable to the clinician because of his discussion of the etiology and treatment of blood diseases as well as the pathology and interpretations of the blood pictures. It is valuable to the technologist because of the directions for laboratory procedures. Dr. Kracke has added another valuable section on the blood pictures of various animals which will be an aid to the research worker.

The colored plates are a little too highly colored and the colors do not match those seen in prepared specimens, but the morphology of the cells both individual and relative is faithfully true. Dr. Kracke's book should be in the library of all physicians, pathologists and technologists.—L. A. Turley, Ph.D.

Dr. Brewer Returns to Oklahoma City

Dr. A. M. Brewer has returned to Oklahoma City after several weeks in Baltimore, Md., where he was enrolled in a graduate course in Urology at the Johns Hopkins hospital.

Doctor Brewer has reopened his office in the Perrine Building, where his practice will be limited to Urology.

REVIEWS and CORRESPONDENCE

SURGERY AND GYNECOLOGY

Abstracts, Reviews and Comments From LeRoy Long Clinic
714 Medical Arts Building, Oklahoma City

"THE RIGHT LATERAL RECTUS INCISION IN ACUTE APPENDICITIS." C. Grant Bain, M.D., Chehalis, Wash. The American Journal of Surgery, November, 1941, Vol. LIV, No. 2, Page 388.

In recent years the McBurney incision for appendectomy has been recommended highly. Its advantages are unquestioned but its disadvantages suggest themselves when the advantages of the right lateral rectus incision (not the right rectus "splitting" incision) are considered especially in acute cases which may have developed complications. Moreover, in those acute cases in which the diagnosis is not completely clear and in those so-called chronic cases in which some exploration may be desirable at operation, these advantages become even more apparent. The right lateral rectus incision is more directly over the site of the appendix, the meso-appendix and localized complications. The incision avoids damage to anatomical structures; it lends itself to extension readily in either direction; it permits a firm closure, even when drainage has to be employed and it facilitates the operative procedure.

The right lateral rectus incision is a slightly oblique incision just lateral to the lower right rectus muscle or just over the lateral edge of the muscle through the rectus sheath; then using some slight displacement of this muscle edge mesially, the posterior sheath is exposed. This is not a muscle splitting incision. The muscle is disturbed only by temporarily retracting the lateral edge mesially, and in closing it resumes its original position between the two layers of fascia. There is no injury to nerves or blood vessels as a rule. It is usually possible to limit the incision to the space between the eleventh and twelfth intercostal nerves.

COMMENT: My personal preference remains the McBurney incision, but there are certainly instances in which the right lateral rectus incision is of distinct value. Although the author has had only one incisional hernia after using this incision in 50 cases, it is my opinion that incisional postoperative hernia is more apt to occur after this type incision than after McBurney incision. For example, I have had no postoperative incisional hernias in the past 50 appendectomies through McBurney incision.—LeRoy D. Long.

"TOTAL HYSTERECTOMY, ABDOMINAL AND VAGINAL." W. C. Danforth, M.D., Evanston, Ill. American Journal of Obstetrics and Gynecology, October, 1941, Vol. 42, No. 4, Page 587.

This is a report of hysterectomies done on Dr. Danforth's service at the Evanston hospital.

There were 744 subtotal hysterectomies with a mortality rate of 0.8 percent. There were 150 total abdominal hysterectomies with a mortality rate of 0.66 percent and there were 425 vaginal hysterectomies with no mortality.

COMMENT: The authors of both of the above articles prefer the total hysterectomy where the mortality rate can be kept low because of the removal of the cervix from any possible future danger of cancer in it but also they feel that the removal of the cervix prevents not infrequent postoperative leukorrhea and chronic foci of infection.

It should be mentioned that the mortality figures of Danfroth are extremely good while those of Miller and his associates are slightly less than the average of large reported series. It may be interesting to remember that we reported in 1938 on 1,000 consecutive hysterectomies done at St. Anthony hospital in Oklahoma City with a mortality rate for the entire group done by the various surgeons there of 0.9 percent.

The old question of total or subtotal hysterectomy is again raised and, naturally, will be considered many times in the future. Total hysterectomy, either abdominally or vaginally, is undoubtedly a better operation than a subtotal hysterectomy when there is any disease of the cervix, and it may be even argued that it is a better operation in any patient in whom a hysterectomy is indicated whether the cervix is diseased or not. However, this question of total or subtotal hysterectomy cannot be settled as a broad basis for action by all men who do pelvic surgery or for all patients. Realizing the advantages of a total hysterectomy over a subtotal hysterectomy, an individual surgeon must consider an individual patient and decide in each instance whether or not he feels that the total operation is advantageous in that particular situation.—Wendell Long.

EYE, EAR, NOSE AND THROAT

Edited by Marvin D. Henley, M. D.
911 Medical Arts Building, Tulsa

"INFLUENCE OF THE EMOTIONS UPON ESOPHAGEAL FUNCTION:" A Comparison of Esophagoscopic and Roentgenologic Findings. William B. Faulkner, F. H. Rodenbaugh and John R. O'Neill. Radiology, Vol. 37, page 443-447, October, 1941.

Psychiatrists have known that emotions can so disturb organic function as to produce severe symptoms which are indistinguishable from those of definite organic disease. The authors observed during an esophagoscopic investigation that the severe esophageal spasm of a patient disappeared by a chance statement of the examiners. They could bring about spasm by the discussion of unpleasant subjects and the arousing of undesirable emotions, and they could cause them to disappear by pleasant and wished-for talk.

Similar psychosomatic changes have occurred in at least 25 other patients, and the changes could be demonstrated by roentgenological examinations. There was, for instance, a woman with severe cardiospasm. When suggestions were made to arouse pleasant emotions, the barium instantly ran into the stomach, all signs of cardiospasm disappeared, and further immediate ingestion showed no esophageal spasm. As soon as the woman began to talk about her family difficulties, the spasm of the cardia returned.

The authors mention other examples of such emotionally controlled esophageal spasm: the salesman whose cardiospasm came from the feeling of insecurity; the married woman with a spasm from economic and social difficulties; a man who was afraid that he would be dropped from "relief." In the existence of such emotional esophageal spasm, one should be very careful in excluding the possibility of stricture, ulcer, carcinoma, foreign body, or other possible cause of the spastic symptom.

"TREATMENT OF SPASMODIC RHINITIS BY GENERAL NON-SPECIFIC DESENSITIZATION." P. de Gunten. Geneve. Schweizerische medizinische Wochenschrift. Vol. 71. page 958-961. August, 1941.

The large number of people who are suffering from spasmodic rhinitis and in whom all measures for cure were ineffective proves that mostly the symptomatic present treatment is insufficient, and that there is a necessity of replacing it by a method based upon our present knowledge of the pathogenesis of this affection. Owing to the fundamental work of Widal and Besredka, spasmodic rhinitis was declared an allergic disease, but, ever since, it has been a disease very reluctant to the therapeutic measures of specific desensitization. The inconstancy of results of vaccinotherapy showed that there are other etiological factors beside the allergenes. The frequency of spasmodic rhinitis in patients of a vagotonic or sympathicotonic habitus and the association of hayfever with asthma make it evident that the role of humoral and nervous constitution is important in the pathogenesis of this affection.

The complexity of pathogenesis requires a total aid by all available procedures and desensitization, disintoxication, and the use of drugs bringing the neurovegetative system into equilibrium. It also requires the use of opotherapeutic measures. It has been only recently that Halphen and Maduro pointed out the importance of endocrine disorders in the genesis of hayfever.

For non-specific desensitization the author recommends two substances: calcium thiosulfate, and jaborandi, both of which he has been using for the last three years in cases of intractable seasonal or perennial hayfever.

Calcium thiosulfate has an anti-shock and anti-allergic effect. It is also a desensitizing agent by its calcium component. Calcium is also an old-established regulator of the neuro-vegetative system. The author used a 20 percent solution of calcium thiosulfate (''Thiocalcium'') for intravenous injections. The immediate effect is a sensation of heat; the intensity of this sensation varies according to the sensitiveness of the patient and the rapidity of the injection. After three or four injections, there is a definite improvement in the cases which will benefit; further six to eight injections may be given at two to three days' intervals. For the next three to four weeks, weekly injections are needed for maintaining the improvement. Simultaneous oral administration of calcibronat, or administration of ephedrine is recommended.

The other agent recommended is jaborandi (Neopancarpine), the active principle of which is an alkaloid, the pilocarpine. It is generally used as a sudorific and sialagogue agent, and for its action on the vagus nerve. It is used for intranasal instillation in isotonic solution (Rhinofluine), for subcutaneous injections, and perorally in drops or tablets. The injections are daily, and the tablets are taken for several months at the seasonal appearance of hayfever.

The author recommends the non-specific desensitization treatment in all cases of seasonal or perennial spasmodic rhinitis. First, the calcium thiosulfate treatment should be tried. If it fails to cure or improve the condition, the jaborandi treatment should begin. The author claims that the thiosulfate injections cured or improved 85 percent of the perennial hayfever cases.

CARDIOLOGY

Edited by F. Redding Hood, M. D.
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"STUDIES ON CONGESTIVE HEART FAILURE. THE IMPORTANCE OF RESTRICTION OF SALT AS COMPARED TO WATER." Henry A. Schroeder, M.D., New York. Condensed from the American Heart Journal.

There is fairly general agreement as to the importance of restricting fluids in the treatment of congestive heart failure, but in the matter of the restriction of sodium chloride, and to what extent it should be restricted, there is difference of opinion.

Twenty-three patients were selected for study, and an attempt was made to find the most obstinate cases of congestive heart failure. Patients were given weighed diets, in which the content of sodium chloride, the caloric value, the protein content, and the intake of fluid were constant for definite periods. Factors such as activity and digitalis therapy were carefully controlled. The output of chloride in the urine was measured daily.

The Action of Sodium Chloride: It was observed in all cases that a reduction in the amount of ingested salt was followed by a loss in weight and in edema fluid. Often diuresis and loss of weight began immediately when the intake of sodium chloride was reduced from 2.0 Gm. in 24 hours to 1.0 Gm. In obstinate cases in which the edema was of long standing, it was always possible to prevent the accumulation of fluid by restriction of salt, although occasionally this necessitated a diet containing as little as .5 Gm. in 24 hours. The addition of a small amount of salt to the diet (1.0 Gm. to 2.0 Gm.) was followed, on the other hand, by an immediate gain in weight.

The Action of Fluid: It was found that the intake of fluids had little relation to the accumulation or disappearance of edema when the intake of salt was low enough. On the administration of a minimal amount of sodium chloride, weight was lost and edema disappeared as rapidly on a regime of restriction of fluids as on one in which water was freely given. There was, in fact, no effect on varying intake of fluids even in cases of severe chronic congestive heart failure.

The Choice of a Diet: In most instances 1.0 Gm. of sodium chloride in the diet was found to be low enough to prevent edema, but in a few cases, in which the heart failure was of long duration and the edema continuous, it was necessary to reduce the intake of salt to 0.5 Gm. per day. By measuring the excretion of chlorides in the urine it was possible to estimate the degree of restriction of sodium chloride which would be necessary for an effect, and a diet containing less than the amount excreted was used.

A diet containing 0.5 Gm. of sodium chloride per day is inadequate in its protein content and cannot be given for a long period of time. A diet in which the salt content is 1.0 Gm. is adequate except for vitamins, and these should be added.

DISCUSSION. There is good reason for rigid restriction of sodium chloride in chronic congestive heart failure. Edema fluid is composed principally of water and salt. Considerable water is necessary in the economy of the organism, but excess salt is not. Water cannot be deposited in the tissue spaces without salt. Salt is, therefore, necessary for the formation of this type of edema.

The rationale for the rigid restriction of fluids is not clear. If the intake of water is limited and the patient dehydrated, the deposition of edema should be lessened. Although dehydration can result from this procedure, it is uncertain that diuresis is thereby initiated. In these cases the output of urine was markedly depressed when the intake of fluids was low, and diuresis was not established until an adequate amount of fluid was administered. Furthermore, a certain volume of urine is necessary for the optimum excretion of chlorides (approximately 60 cc. per hour). If the volume is permitted to shrink below this, the output of chlorides is lessened. The opposite course is, therefore, preferable. If the output of urine can be increased by the administration of water, accompanied by rigid restriction of salt, the depletion of chlorides would be accelerated. On this plan, in no case did the output of urine fail to increase when extra water was added and sometimes an increase in the amount of water taken actually initiated loss of weight.

It is evident from these data that the administration

of comparatively large amounts of fluid to cardiac patients does not increase the rate of formation of edema, provided the intake of salt is low enough. Limitation of the ingestion of salt, including limitation of those foods in which the salt content is high, imposes little hardship upon the patient, whereas restriction of fluids to the degree necessary to produce an effect may be difficult, hazardous and uncomfortable. The occasional diuresis, with loss of weight, which has been observed when fluids were given, suggests that sometimes water is beneficial in this condition. For practical purposes it appears wise to allow patients with heart failure to drink as they please, provided the intake of sodium chloride (and other sodium salts) is carefully limited.

Compared to the amount of salt in the diets used in this study, the amount in the usual "salt-free" or "cardiac" diet is relatively high. An ordinary ward diet to which no extra salt and no salty foods have been added contains approximately 4.0 Gm. of sodium chloride; one cooked without salt contains 2.0 to 3.0 Gm. Since it has been shown that some patients may gain weight when taking 2.0 Gm. and remain at the same weight when taking 1.0 Gm. of salt in 24 hours, the kind of food given in the treatment of this type of edema assumes importance. The beneficial effects of the Karell diet (800 cc. of milk in 24 hours) may be due to the low content of fluid and of food, but especially to the fact that the salt content is also reduced to 1.0 Gm.

Few complaints were made about these diets when the food was properly seasoned. Patients were able to take them at home with less hardship than would be caused by the restriction of fluids.

ORTHOPAEDIC SURGERY

Edited by Earl D. McBride, M. D., F. A. C. S.
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"CAUSALGIC BACKACHE." Otho C. Hudson, Carl A. Hettesheimer and Percival A. Robin. Amer. Jr. of Surg., LII, 297, May 1941.

The authors describe a type of back pain that involves the lumbar muscles, especially the quadratus lumborum. This pain is due to irritation of the twelfth thoracic and first lumbar nerves and radiates along the twelfth rib. A clinical picture of asymmetrical muscle imbalance occurs. This group of cases makes up another definite clinical entity, which can be separated from that vast group of patients suffering from back pain. The treatment is simple and effective.

This type of backache is produced by muscle imbalance and muscle spasm, which increase the tension within the quadratus lumborum fascia with direct pressure on the twelfth thoracic nerve, as in the scalenus anterior syndrome. The irritation is manifested by pain with radiation along the course of this nerve. The abdominal muscles become weakened by lack of use, and the overworked sacrospinalis muscles become contracted with an increase of lumbar lordosis and anterior inclination of the pelvis.

The history given by the patient is quite characteristic. It is the history of low-back pain of several years' duration, which is localized in the crest of the ilium and is unilateral. If the pain is right-sided, in many cases appendectomy, gall-bladder surgery, or urological instrumentation have been resorted to without relief. The discomfort continues at night as well as during the day.

Examination reveals increased lumbar lordosis, postural scoliosis, and tilting of the pelvis with abduction of the lower extremity, internal rotation of the thigh, and marked pronation of the foot. There is often hyperaesthesia over the cutaneous distribution of the twelfth thoracic and first lumbar nerves. Tenderness along the twelfth rib is elicited. Tenderness and hyperaesthesia are observed parallel to Poupart's ligament, the upper inner aspect of the thigh, and paravertebrally over the twelfth thoracic and first lumbar transverse processes.

The treatment is rather simple and consists of raising the heel of the abducted extremity to overcome the pelvic tilt. This relaxes the quadratus lumborum and allows the rib to return to normal position, resulting in correction of the scoliosis and disappearance of the internal rotation of the thigh. Exercises for the development of the abdominal muscles and the sacrospinalis group are given.

"THE MANAGEMENT OF SCOLIOSIS." Frederick vom Saal. Amer. Jr. of Surgery, LII, 433, June 1941.

Etiological factors in the various types of scoliosis are discussed as paralytic, idiopathic, thoracogenic, neuropathic, and congenital. In the treatment of the postpoliomyelitic curves, it was found that if the curve was progressing before application of the brace, it would continue to do so after application of the brace. The majority of curves in the idiopathic group stopped progressing before cessation of growth. Fusion was done in 41 patients in a group of 174 with the various types, the patients with postpoliomyelitic scoliosis predominating. Many of these will need fusion for the prevention of deformity. The author uses the Risser type of jacket, with certain modifications. The jacket is applied with the patient in the maximum bending position toward the concave side of the primary curve, thus straightening the compensatory curves, producing one long curve, and derotating the secondary curves, making the patient straighter and more comfortable. Hinges and turnbuckles are then used for correction. A second modification consists of later rotating the upper part of the cast, so as to bring the shoulder on the convex side of the primary curve foward, after first removing the hinges and turnbuckles. This aids in the correction of rib deformity and brings the spinous processes into a more nearly vertical position—allowing greater ease of operation in the later spine fusion, and better cosmetic results. This does not apply in long-standing cases with severe rotation of the vertebral bodies. The fusion area is determined by studies of the immediately preoperative roentgenogram.

The operation is performed in the usual manner, using the modified Hibbs or Mackenzie Forbes technique, fusing six or seven vertebrae at one time, and using additional bone chips in all cases. Preoperative and postoperative care are discussed.

INTERNAL MEDICINE

Edited by Hugh Jeter, M. D., F. A. C. P., A. S. C. P.
1200 North Walker, Oklahoma City

"NERVES OF THE ADULT HUMAN ENDOMETRIUM." David State, M.D. and Edwin F. Hirsch, M.D., Chicago. Archives of Pathology, Volume 32, Number 6, December, 1941.

The authors have reviewed published reports regarding the distribution of nerves in the human uterus and found limited information regarding their distribution. The results of this investigation are briefly abstracted. Evidence is presented to indicate that the presence of nerve fibers in the endometrium has lead to confusion because of inadequacy of staining methods employed. A method of staining is given and several photomicrographs are included.

As a result of their investigation with improved methods, they conclude that the distribution of the nerve supply of the spiral and that of the basal arteries of the endometrium apparently are distinct. The spiral arteries are innervated in the inner fourth of the myometrium near their bifurcation; the basal arteries are supplied by nerves in the basilar portions of the

endometrium or in the immediately underlying myometrium.

A vasomotor nervous mechanism in the control of the vascular reactions of the endometrial arteries during the menstrual cycle is suggested by this anatomic study.

"INFLUENCE OF SODIUM BICARBONATE IN PREVENTING RENAL LESIONS FROM MASSIVE DOSES OF SULFATHIAZOLE." David R. Climenko, M.D., Ph.d., Rensselaer, N. Y. and Arthur W. Wright, M.D., Albany, N. Y. Archives of Pathology, Volume 32, Number 6, December, 1941.

In this, the authors have experimentally, in monkeys, administered large doses of sulfathiazole and found that by such large doses the animals would invariably develop renal lesions and die. The experimental results would seem to indicate that the major pathological changes were traumatization of the collecting tubules due to the precipitation of crystalline material in the renal parenchyma.

They, therefore, suggest that in clinical practice, use should be made of bicarbonate, or other suitable alkali, sufficient to maintain the urine on the alkaline side, and point out that Bridges and Mattice have shown that the amount of alkali will vary from patient to patient and from time to time in the same patient.

When a dose level of sulfathiazole is used which kills the major portion of experimental animals and produces severe renal lesions in all experimental animals, it is possible to prevent fatalities and also to inhibit the formation of the multiple local inflammatory lesions in the kidney by the administration of large quantities of sodium bicarbonate.

This action of bicarbonate can be accounted for by the fact that both sulfathiazole and its conjugated derivative acetylsulfathiazole are many times more soluble in alkaline mediums than they are in acid mediums and that the maintenance of an alkaline urine prevents precipitation of the drug in the kidney and thereby prevents formation of the local lesions.

UROLOGY

Edited by D. W. Branham, M. D.
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"TEN YEARS' EXPERIENCE IN THE MANAGEMENT OF CRYPTORCHIDISM." Virgil S. Counseller, M.D. The Journal of Urology.

The author presents a valuable contribution that sums up our present day concept of the undescended testes. Of interest is the fact that he does not feel that hormone therapy is as effective as some of the reports show. In his opinion the administration of gonadotropic harmone is indicated in but a small percentage of patients, and that with the majority, surgical treatment is advisable. The time of surgery should be delayed to the age of puberty, in most instances the type of operation performed depends entirely on the physical characteristics present; position of the testes, size of scrotum, etc.

Castration is done in only adult patients, or on patients where it is impossible to replace the testes satisfactorily by orthodox surgery.

"SPASTIC URETERITIS (URETERAL STRICTURE)? ESSENTIAL CLINICAL CONSIDERATIONS." Henry W. E. Walther and Robert M. Willoughby, M.D. The Journal of Urology.

I was particularly interested in this article on a subject that has had comparatively little attention the past few years. Yet in my opinion it is a clinical condition that is comparatively common and productive of much distress referable to the abdomen. In a questionnaire issued to a large number of urologists, the returns proved to him that the majority of the urologists feel there is such a condition as painful stenosis or spastic conditions of the ureter. Opinions differ as to its frequency and its causation. There is little difference of opinion, however, as to the clinical picture, regardless of the causative factors, and there is a rather general belief in the efficacy of ureteral dilatation as a means of relief.

"FOUR SIMPLE RULES FOR A SUCCESSFUL RESECTION." Henry S. Brown, M.D. Transactions of the South Central Section of the American Urological Association, Denver, Colorado, 1940.

Dr. Brown has contributed to the surgery of prostatic resection four basic rules that if followed will aid the Urologist in determining whether a satisfactory resection has been performed.

1. With the sheath carefully centered and the verumontanum just visible, there should be no tissue observed to fall into the open end of the sheath when it is rotated in a complete circle.

2. On examination with the retrograde telescope, the entire circumference at the junction of the operated area and the bladder should show no prostatic tissue projecting into the bladder at any point.

3. On examination of the prostatic cavity with the retrograde telescope no tissue should be seen projecting into this cavity.

4. The verumontanum should be completely visible with the retrograde telescope.

Hotel Offers Rates for A. M. A. Meeting

Announcement of special rates to be granted physicians attending the American Medical Association meeting in June, 1942, in Atlantic City, has been made by the Ritz-Carlton hotel.

Any doctor who is interested in obtaining information about the rates and reservation cards should contact the Executive Office at 210 Plaza Court, Oklahoma City.

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